4857

County Borough of Blackburn.

18NOV1926

Annual Report

UPON THE

Health of Blackburn

For the Year 1925,

BY

OSCAR M. HOLDEN, M.D., D.P.H.,

Medical Officer of Health,
Administrative Tuberculosis Officer,
Medical Superintendent of the Corporation Hospitals,
School Medical Officer.

BLACKBURN:
Geo. Toulmin & Sons, The "Times" Printing Works, Northgate.

With the

Medical Officer of Health's

Compliments.

Town Hall,

Blackburn.

CAL DISE

County Borough of Blackburn.

ANNUAL REPORT

UPON THE

Health of Blackburn

For the Year 1925,

BY

OSCAR M. HOLDEN, M.D., D.P.H.,

Medical Officer of Health,
Administrative Tuberculosis Officer,
Medical Superintendent of the Corporation Hospitals,
School Medical Officer.

BLACKBURN:
Geo Toulmin & Sons, The "Times" Printing Works, Northgate.

CONTENTS.

	Page.
Abattoir	22, 151, 159
After-Care, Tuberculosis	85
Ambulance Facilities	25
Ante-Natal Care	21, 114-116
Anti-Toxin, Diphtheria	50
Ash Receptacles	179
Atmospheric Pollution	172-178
Anthrax	164
Arterio Sclerosis	34
Bacteriological and Pathological Examinations	68, 69
Births	18, 26, 119
Blind, Care of the	197-202
Cancer	36-40
Cattle Market	165-166
Child Mortality	19, 123-132
Cost of Public Health Department	10
Climate	11-14
Cleansing Station	197
Closet Accommodation	178
Common Lodging-houses	186
Contagious Diseases of Animals Acts	163-166
Conversions	178
Crippling	22
Census	15, 16
Dairies	167
Deaths	18, 26, 31, 32
Dental Work	87, 145
Diarrhœa	132
Diphtheria	49, 62-64
Disinfection	196
Dispensary—Tuberculosis	80, 89, 97
Education on Health	23, 207-208
Enteric Fever	64
Factory and Workshop Acts	194-196
Farms	167
Food & Drugs Acts, Sale of	168-171
Food	22, 146-172
Food, Preparing Places	166
Foot and Mouth Disease	163
Geology	10, 11
Hospital for Infectious Diseases	25, 56-68
Hospital Accommodation	24
Hospital, Maternity	21, 24, 120-121
Housing	46, 47, 180-185
Houses Let in Lodgings	23, 185
Heart Disease	33
Home Nursing	207
Illegitimate Children	144
Infant Consultations	136-139
Infantile Mortality	19, 123-132
Infectious Diseases	21, 22, 35, 41-56
Infant Welfare Visitors' Work	141-144
Influenza	52
Lavatory Accommodation	178
Local Acts	203-204
Maternity & Child Welfare	21, 123-146
Maternity Hospital	21, 24, 120-121
Marriages	26
Measles	51, 64
Meat Inspection	151-159
Meteorology	11-14
Midwives' Acts	132-135
Milk, Tuberculous	151, 161
Milk (Mothers & Children Order)	139-140
Milk	23, 146-148, 150, 160-163
Mortality in Connection with Childbirth	20, 117-119
Natural Increase in Population	26
Neo-Natal Mortality	19
Non-Tuberculous Lung Diseases	33
Notification of Births Acts	114
Notification of Infectious Diseases	41, 45, 71
Nuisances	188, 189
Nurses, District	207
Offensive Trades	188
Ophthalmia of the Newly-born	122
Occupational Statistics	38, 75
Parasitic Mange	164
Poor Relief	17
Population	15, 16
Pregnancy, Deaths due to	20, 117-119
Puerperal Sepsis	117
Queen's Park Hospital	25
Refuse, Collection of	179
Residential Open-Air School	24, 67
"Return" Cases of Scarlet Fever	59
Royal Infirmary	25
Respiratory Diseases	33
Rheumatism	34
Sanatorium	83, 92 to 96
Sanitary Work, Details of	23, 178-197
Scarlet Fever	49, 59-62
Scavenging	179
Sewers	178
Slaughter-houses	22, 151-159
Smoke Nuisance	177
Statistical Summary	10
Staff	9
Still-Births	121
Smallpox	53-56
Social Conditions	14
Shellfish	149-150
Tents and Vans	186
Tuberculosis	20, 22, 69-99
Training of Tuberculous Ex-Servicemen	87
Tuberculosis Dispensary	80, 89, 97
Vans	186
Venereal Diseases	21, 100-113
Veterinary Inspector's Report	151-166
Vital Statistics	26-40
Voluntary Organisations	206
Ward Statistics	26-29, 73
Water	180
Whooping Cough	52
Workshops	195
Workplaces	195
X-Ray Work	87

Health & Maternity & Child Welfare Committee.

THE MAYOR (COUNCILLOR J. STANWORTH, J.P.).
ALDERMAN J. FIELDING, J.P., Chairman.
ALDERMAN F. J. GREEVES, J.P., L.R.C.P., Vice-Chairman.

ALDERMEN

WATSON, J.P., SHORROCK, J.P., KEIGHLEY, J.P., M.D., and RAMSAY, J.P., L.R.C.P.

COUNCILLORS

BRADLEY, L.R.C.P.
FRYARS
CAMPBELL
HARRISON
MAKIN, J.P.
CRITCHLEY
COWARD
HOLDEN (J.)
HEYES
ODDIE
GRIMSHAW
LUCAS
HURLEY
HOLDEN (B.)
FISH

with the addition of

MRS. J. RAWLINSON, MISS K. HOWARD, MRS. H. J. HARVEY, and Mrs. R. Y. AITKEN.

Staff of the Health Department.

Medical Officer of Health.

W. ALLEN DALEY, M.D., B.S., B.Sc. (Lond.), B.A., D.P.H. (till February 28th, 1925).
OSCAR M. HOLDEN, M.D., D.P.H. (from May 1st, 1925).

Assistant Medical Officer of Health and Tuberculosis Officer.

D. C. LAMONT, M.B., Ch.B. (Edin.), D.P.H. (till October 1st, 1925).
G. C. F. ROE, L.R.C.P. & S.I., D.P.H., D.P.M. (from December 29th, 1925).

Assistant Medical Officers of Health

W. M. FRAZER, M.B., Ch.B., M.Sc., D.P.H. (Liverpool), Barrister-at-Law (till 30th June, 1925).
C. B. HOGG, M.B., Ch.B., M.D., D.P.H. (from 1st September, 1925).
MISS ELLA G. F. MACKENZIE, M.A., M.B., Ch.B. (Edin.), D.P.H. (Birm.)

Veterinary Inspector and Chief Meat Inspector.

E. J. BURNDRED, M.C., M.R.C.V.S., D.V.H.

*JAMES GRAHAM, Chief Sanitary Inspector.
*W. H. GOODMAN, Assistant Meat Inspector.
*O. H. WILLIAMS, Special Inspector for Food & Drugs, etc.
*H. KENYON, Special Inspector for Factories and Workshops.
*A. LEES, Special Inspector for Drainage Work.

District Inspectors.

*J. W. MARGINSON. *W. WALNE. *ERNEST SEFTON.
*H. W. FOWLER. *T. PICKERING (till 28th February, 1925).

Lady Health Visitors.

§†*MISS LOWE. §*MISS LANGLEY. §*MISS STANANOUGHT.
§*MISS LEAR (till February, 1925). §‡†MISS BELL.
§‡†*MISS LUNT (from 1st February, 1925).
§‡†*MISS RUDD (from 11th May, 1925).

Matron, Corporation Hospital: §‡MISS GOLD (till August, 1925).
§‡†MISS CRITCHLEY (from 21st November, 1925).

Matron, Springfield Maternity House: †§‡MISS RUSHTON.

Tuberculosis Nurse: §‡E. NELSON.

Chief Clerk: THOMAS FOWLER.

Clerks.

§H. PEMBERTON. *J. R. MARSDEN. H. WALSH.
MISS E. COMBERBACH. §J. MARGINSON. MISS C. HAWORTH.
§W. PARKER. R. HAYHURST (from 25th May, 1925).

Disinfectors: J. W. JOHNSON. F. HOLDEN.

---

*Holders of Certificates of the Royal Sanitary Institute.
†Certificated Midwives. ‡Trained Nurses
§ A contribution to the salaries of these Officers is made from Exchequer grants.

PUBLIC HEALTH OFFICES,
BLACKBURN,
June, 1926.

To the Chairman and Members of the Health Committee of the County Borough of Blackburn.

MR. CHAIRMAN AND GENTLEMEN,

I have the honour to submit to you, in accordance with the Sanitary Officers Order, 1922, by first Annual Report, being the forty-fourth of the series, for the year ending December 31st, 1925.

It was intimated in paragraph 13 of Circular 540 of the 18th December, 1924, that the Annual Report of the Medical Officer of Health for 1925 would be a Survey Report; accordingly my report follows the lines laid down in Circular 648 of the Ministry of Health, dated December 10th, 1925.

The arrangement differs from the reports of my predecessor. Each department of the work is dealt with *in toto* as a separate section, and all statistics relating to any particular branch are included in the section devoted to that branch.

The issue of the Report has been delayed in order to include the figures of the Census taken in 1926, but the statistics are based upon the Registrar General's estimate of population. Any errors caused thereby are so small as to be of no practical importance.

I wish to tender my thanks to the staff of the Health Department for the assistance they have rendered me in the compilation of the statistics, and for the creditable fashion in which they have, each and all, performed their various duties throughout the year.

My thanks are also due to you, Mr. Chairman and Gentlemen, for the encouragement and support you have given me since I commenced my duties in Blackburn.

I am,

Your obedient Servant,

OSCAR M. HOLDEN.

NATURAL AND SOCIAL CONDITIONS.

Area (in Acres)	7,649
Population (Census 1921)	126,643
,, (Estimated middle of 1925)	126,900
,, (Census, March 1926)	126,497
Number of Inhabited Houses (1921)	30,948
,, ,, ,, (1926)	31,994
Number of Families or separate Occupiers (1921)	31,608
Rateable Value	£759,514
Sum represented by a Penny Rate	£2,838
Rate in the £ (excluding Water) 1925-6	13/8
Gross Expenditure on Health Social Services	£36,897
Income on Health Social Services	£16,588
Net Expenditure on Health Social Services	£20,309

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE AREA.

Blackburn is situated principally in the valley of the Blakewater, and to a much smaller extent in the valley of the Darwen.

The rivers join on the western boundary of the Borough. On the north side of the Blakewater the land rises rapidly from a height of 300 feet to a height of 700 feet. To the South and West of the Darwen there is also a fairly rapid increase, from a height of 300, to 600 feet. The land between the two rivers has at first only a slight inclination, but towards the south-east it rises rapidly to a height of 650 feet. Gradients of 1 in 10 or 1 in 12 are not uncommon on the north side and in one locality a gradient of 1 in 6 is met with. On the South side the steepest slope (Brandy House Brow) has an average rise of 1 in 10, with a short stretch of 1 in 6½.

The fall of the valley of the Blakewater is 1 in 138, or 86 feet in 2¼ miles. With a few exceptions the falls in the town may be considered good.

Geological. The deep strata underlying the town are principally the lower Coal Measures or Gannister Beds. There is a narrow strip of Alluvium in the valley of the Darwen, and Millstone Grit (rock and shale) comes to the surface on the northern side of the borough over a considerable area, and to a very small extent on the southern side.

A fault in the Millstone and Gannister Beds, with a downthrow of some 45 yards, is manifest near the railway line running to Ribchester and practically parallel with it. Two smaller faults in the Gannister are seen running east and west on the south side in the region of Black-a-Moor and north and south in the region of Guide. Uncertain outcrops of coal occur at the foot of the northern slopes and at the top of the southern elevation.

The Gannister beds underlie nearly the whole of the town proper, and those parts which have Millstone Grit for their deep strata are principally agricultural land. With one or two exceptions the deep strata are covered with drift beds. Throughout the greater part of the borough the drift beds are principally composed of clay. There is, however, an area of land in the centre of the town, in the region of the Town Hall, Market Place, and Railway Station, covered with a fair depth of pure sand. Northwards it extends as far as Regent Street and Richmond Terrace, and westwards, as a narrow strip as far as Witton Stocks. The sand varies considerably in its purity. In the neighbourhood of Church Street, Mincing Lane, Weir Street, Clayton Street and King Street it is of a reddish colour and reaches a maximum depth of some 20 feet. In the vicinity of Galligreaves Street and Whalley Banks the sand was overlaid by a thin covering of clay, most of which has been removed by building operations. To the south of Bank Top, and Redlam, the subsoil is a mixture of sand, gravel and clay, whilst to the north of Bank Top and Redlam as far as the river Blakewater, the subsoil is mostly sand. Over the remainder of the town the drift beds are clay or clay and gravel.

Millstone Grit reaches the surface along Revidge Road, chiefly on the south side, and from this outcrop originate numerous springs.

From the aspect of Health, the drift beds are of the most importance. Upon their character the dryness of a locality depends. The extent of the clay drifts has some bearing upon the prevalence of the rheumatic afflictions which are a prominent feature in the sickness records of the town.

METEOROLOGY.

The year opened with stormy weather and gales, which gave place to fair and colder weather during the second week. By the 13th of January milder weather with strong S.W. winds set in and much rain.

February was mild and wet but ground frosts were numerous throughout the month. March was dull but the rainfall was below normal; cold winds and cloudy weather were prevalent. April was changeable and showery with many sunny periods. During the middle of the month high W. winds with rain occurred. May was like April, for the most part changeable with thunderstorms and frequent hailstorms. Ground frosts occurred during the month. June was remarkable for the scarcity of the rainfall and the abundant sunshine. The first three weeks of July were characterised by fair, warm weather which broke in the last week, becoming colder and unsettled. August was mainly dull and unsettled with a rainfall slightly above normal. Sunshine was deficient, the prevailing wind being W. The weather of September was cold, windy and unsettled with bright periods, the mean temperature was below normal, rainfall above normal and sunshine deficient. During the first half of October dry and settled weather was experienced, but the second half was windy and wet. Fogs were prevalent during the milder weather of the second half. November, after the first week, was fine, dry and cold. Ground frosts were frequent and fogs troublesome. Rainfall was below normal and sunshine above normal. December continued the cold weather experienced in November. Snow, sleet and ground frosts were frequent and the general temperature was low until December 26th, when a rapid rise in temperature took place, with mild rainy weather. The year ended with gales. Sunshine was in excess of the normal. The snowfalls and thaws led to flooding in various parts of England.

TABLE 1.

METEOROLOGY, 1925.

Corporation Hospital Station, Height 560 feet.

	January	February	March	April	May	June	July	August	Sept.	October	Nov.	Dec.	Totals
	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.
Amount of Bright Sunshine ...	26 59	36 20	82 25	133 25	100 40	235 40	148 35	143 15	97 25	54 50	70 35	40 5	1170 5
Average per day	0·52	1·8	2·39	4·27	3·15	7·60	4·47	4·37	3·15	1·51	2·21	1·18	...
	hrs. min.	hrs. min.	hrs min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	hrs. min.	
Maximum amount in one day...	4 40	5 25	9 40	10 30	10 50	13 5	12 0	10 50	9 0	7 45	5 5	5 50	...
Total Rainfall (in inches)	2·315	6·975	1·525	2·565	4·245	0·180	2·049	3·332	3·904	5·299	3·375	2·435	38·199
No. of days on which rain fell	17	24	18	18	26	6	15	22	25	20	11	21	223
Av. Temp. at 9 a.m. (Fahr.) ...	39·59	38·67	39·83	43·60	50·16	58·90	61·00	59·22	50·54	49·60	36·88	35·35	...
Temp. of earth at depth of 1 ft.	40·06	39·32	39·05	43·00	49·38	55·76	57·45	58·19	52·39	49·75	39·31	34·83	...
Temp. of earth at depth of 4ft.	41·18	41·20	40·25	42·20	46·06	52·90	54·85	56·13	54·16	51·26	46·83	40·50	...
Highest Temp. in Shade	52·0	51·0	50·0	59·0	70·0	86·0	84·0	68·5	63·5	65·0	59·0	54·0	...
Lowest Temp. in Shade.........	25·0	24·0	25·0	30·0	33·0	43·0	43·0	45·0	33·5	30·0	23·0	23·0	...
Av. Temp. Sun (black bulb) ...	48·42	62·46	81·48	101·30	106·0	125·80	125·50	114·63	91·30	72·55	52·46	35·61	.
Lowest Temp. on Grass.........	26·16	27·96	28·90	34·66	41·14	40·20	44·0	48·70	42·20	40·24	26·73	27·19	...
Highest cor. reading of barom.	30·504	30·258	30·530	30·240	30·138	30·317	30·194	30·341	30·308	30·511	30·517	30·485	...
Lowest cor. reading of barom.	28·816	28·517	29·422	29·354	29·076	29·868	29·298	29·503	29·250	28·504	29·040	28·682	...
Mean reading of barometer..... (uncorrected)	29·521	28·935	29·516	29·267	29·169	29·570	29·356	29·356	29·333	29·290	29·353	29·128	...

METEOROLOGY.

Climatological Station, Corporation Hospital,
560 feet above sea level.

	1924 :	1925 :
Highest reading of maximum thermometer...	81.2 July 13.	86.0 June 6.
Lowest reading of minimum thermometer ...	18.0 Nov. 17	23.0 Nov. 1, & Dec. 30.
Total Rainfall	42.166 ins.	38.199 ins.
No. of Days on which Rain fell	254	223.
No. of Days without any bright Sunshine ...	103	80.

Direction of Prevailing Wind :—

	N.	*N.E.*	*E.*	*S.E.*	*S.*	*S.W.*	*W.*	*N.W.*	*Calm.*
1925—Days	23	15	71	17	69	17	131	21	1
1924—Days	9	8	88	14	87	12	141	7	—

Third Quarter.

	1924.	1925.
Mean Atmospheric Temperature at 9 a.m.	55.94	59.70
Mean Temperature 1ft. below the ground	55.17	57.13
Mean Temperature 4ft. below the ground	53.23	54.62
Total amount of bright Sunshine in hours	344	527
Amount of Rain	15.211 in.	5.561 in.

SOCIAL CONDITIONS.

Blackburn is essentially an industrial town, the chief industry being Cotton Weaving and its subsidiary branches. Out of a total occupied females of 33,416, 24,999 were textile workers, *i.e.* in every 1,000 occupied females in Blackburn 748 were textile workers. In the whole female population of 57,261, the proportion of textile workers is 435 per 1,000. The other occupations employing considerable numbers of female employees are Domestic Service (2,382) and Commerce (1,702).

On the male side, in a total of 41,736 occupied males, 11,701 were textile workers. A proportion of 280 per 1,000. Unoccupied males numbered 4,433 (1921 Census).

The other industries which employ considerable numbers of men are Metal Workers (4,993), Commercial and Financial occupations (4,221) and Transport (3,428).

Employers of labour number 1,700 male and 279 female; Employees number 37,561 male and 31,775 female; Workers on their own account number 2,475 males and 1,362 females, whilst persons retired number 1,460 males and 521 females.

RESULTS OF CENSUS TAKEN MARCH 14th, 1926.

The results of the Census showed a decline in the population since 1921 of 146. It showed an increase of 49 males and a decrease of 195 females.

The slight increase of acreage together with the decline of population reduced the number of persons per acre from 17 to 16.5.

The Wards showing the largest decreases in population were St. John (–229), St. Michael (–188), and Trinity (–168). Wards showing increases were St. Andrew (+567), St. Silas (+191), St. Stephen (+191), and St. Luke (+69).

Wards showing the largest increase in the number of inhabited houses were St. Andrew and St. Stephen (+246), St. Silas (+159), and St. Michael (+77). In no ward was a decrease in the number of inhabited houses recorded.

The average number of persons per house has consequently dropped from 4.10 to 3.97.

These figures show that Blackburn is not an overcrowded town either from the number of persons per acre, or the house population. St. Matthew's (83.6), St. Paul (78.9), St. John (68.2), and Trinity (57.9) are the most densely populated areas. The number of persons per house is least in St. Silas (3.57) and St. Michael (3.79), and greatest in St. Mary (4.41) and St. Thomas (4.37).

The population of Blackburn apparently reached its zenith during the first decade of the century. The Census return for 1911 was 133,052 persons. At the Census 1921 it had dropped to 126,643. There are several possible explanations for this decrease, all of which probably have exerted, and some of which are still exerting, an influence. Firstly, Blackburn lost heavily in the War, and thereby the number of potential fathers, and fathers of families was decreased. Secondly, the staple trade has been in a depressed condition since 1919. This has probably led to the emigration of a number of the more venturesome and energetic members of the community. Thirdly, there is apparent a growing tendency for those who are able to live away from the scene of their work to do so, consequently the day population is higher than the night population. This phenomenon is seen par excellence in the City of London, which has a night population of some 13,000 persons, but a day population approaching half a million. From the aspect of Health this to and fro movement of the population is a feature to be encouraged by a still greater facility of transport, and development of rural areas surrounding the large towns.

TABLE 2.

CENSUS 1926.

Statement showing population, acreage, number of persons per acre, number of houses occupied and average number of persons per house.

Wards	Area in Statute Acres 1921	Area in Statute Acres 1926	Total Population. 1921. Persons	Total Population. 1926. Persons	Total Population. 1926. Males	Total Population. 1926. Females	Persons per Acre Census 1921	Persons per Acre Census 1926	Increase or Decrease of Population	Number of Houses occupied 1921	Number of Houses occupied 1926	Average No. of persons per house 1921	Average No. of persons per house 1926	Increase in the No. of Houses
St. Silas... ...	985	993	9009	9210	3952	5258	9·1	9·2	+ 191	2417	2576	3·72	3·57	159
St. Michael ...	623	623	8975	8787	4048	4739	14·4	14·1	− 188	2242	2319	4·00	3·79	77
St. Stephen ...	1163	1170	11021	11212	5237	5975	9·5	9·5	+ 191	2635	2881	4·18	3·89	246
St. Thomas ...	1718	1718	12068	11941	5516	6425	7·0	7·0	− 127	2669	2729	4·52	4·37	60
Park	651	650	9479	9467	4225	5242	14·6	14·5	− 12	2331	2363	4·06	4·00	32
St. Andrew ...	921	1142	10706	11273	5164	6109	11·6	9·8	+ 567	2686	2932	3·98	3·84	246
St. Mark ...	403	401	10427	10311	4622	5689	25·9	25·7	− 116	2593	2642	4·02	3·90	49
St. Paul... ...	123	123	9771	9715	4336	5379	79·5	78·9	− 56	2445	2480	3·99	3·91	35
St. John ...	101	102	7186	6957	3164	3793	71·1	68·2	− 229	1830	1850	3·92	3·76	20
Trinity	150	150	8864	8696	3956	4740	59·1	57·9	− 168	2185	2204	4·05	3·94	19
St. Matthew...	107	110	9321	9200	4248	4952	87·1	83·6	− 121	2334	2351	3·99	3·91	17
St. Luke ...	168	168	7572	7641	3487	4154	45·1	45·4	+ 69	1872	1907	4·04	4·00	35
St. Peter ...	133	129	6719	6613	3131	3482	50·5	51·2	− 106	1497	1520	4·48	4·35	23
St. Mary ...	174	170	5525	5474	2610	2864	31·8	32·2	− 51	1212	1240	4·55	4·41	28
	7420	7649	126643	126497	57696	68801	17·0	16·5	− 149	30948	31994	4·10	3·97	1046
										Empty	231			
										Houses	32225			

POOR LAW RELIEF.

Blackburn Union.

I am indebted to Mr. G. B. Pye, the Clerk to the Guardians, for the following information :—

No. of Residents of Blackburn Township in receipt of Out-door poor relief on the

1st January, 1925	1,001	families comprising	2,043 persons.
1st July, 1925	1,082	,, ,,	2,120 ,,
1st January, 1926	1,504	,, ,,	3,440 ,,

No. of Blackburn persons relieved in the Guardians' Institution

on the 1st January, 1926	771
and in the Cottage Homes on the same date	82

Expenditure on Out-Relief to Blackburn cases during the twelve months ended 30th September, 1925 :—

Half-year ended 31st March, 1925	£17,452 11s. 4d
Half-year ended 30th Sept., 1925	£19,543 16s. 7d.

No. of Blackburn Township cases in the Queen's Park Hospital at the end of 1925 : 304. (This number is included in the 771 mentioned above).

A RÉSUMÉ OF THE PAST FIVE YEARS,

1921—1925.

As was intimated in paragraph 13 of Circular 540, dated December 18th, 1924, the Annual Report of the Medical Officer of Health for 1925 was to be a Survey Report. By this the Report was to deal comprehensively with—

(*a*) The measure of progress made in Blackburn during the preceding five years in the improvement of the Public Health.

(*b*) The extent and character of the changes made during that period in the Public Health Services of the area (*e.g.* housing, water supply, sewerage, refuse disposal, food inspection, maternity and child welfare schemes, schemes for the treatment of tuberculosis and venereal diseases, provision of isolation hospitals or other services directed to the prevention or cure of disease in individuals).

(*c*) Any further action of importance in the organisation or development of Public Health Services contemplated by the Local Authority, or considered desirable by the Medical Officer of Health.

My predecessor—Dr. W. Allen Daley—gave such a survey in the Report for 1924, and as I did not take up my duties until May, 1925, I have drawn very largely from his résumé for the details of comparison required.

A simple local Census was taken on March 14th, 1926, and the figures so obtained agreed very closely with the Registrar-General's figures for the 1921 Census. The total population at the 1921 Census was 126,643; at the 1926 Census 126,497. It is seen, consequently, that the basis taken by Dr. Daley of 129,000 was too high and therefore the Birth Rate and Death Rate figures for the last few years are all lower than they should be. The error is, however, not of great moment.

The tendency for both the Birth Rates and the Death Rates is to fall, and the former are falling more rapidly than the latter. Since 1920 the Death Rate has fluctuated about a mean and shows no sustained inclination to fall to a permanently lower level.

Year.	Birth Rate.	Death Rate.	Natural Increase 1.000 Population.
1894	29.5	17.7	11.8
1904	23.5	17.2	6.3
1914	20.8	14.9	5.9
1920	22.1	13.9	8.2
1921	19.5	12.7	6.8
1922	16.8	14.2	2.6
1923	16.2	13.4	2.8
1924	15.3	14.0	1.3
1925	14.9	13.9	0.9

The Birth Rate for 1925 is 14.9; the Death Rate 13.9; and the Infantile Mortality 97 per 1,000 births.

The Deaths registered in Blackburn in 1925 numbered 1,767, or 43 fewer than in 1924. Of these, 186 were in infants under 1 year of age, 103 children from 2 to 4 years, 51 from 5 to 14 years, 72 from 15 to 24 years, 212 from 25 to 44 years, 489 from 45 to 64 years, and 654 from 65 years upwards. How many of these deaths were avoidable it is difficult to calculate, but doubtless some 25% of the whole were brought about by causes which may properly be regarded as preventable. A careful perusal of the certified causes of death makes this clear.

As pointed out by the Registrar-General in several of his post-war reports, a falling birth-rate tends to increase the death-rate, for as the years pass a larger proportion of the population is at the higher ages.

I have dealt with Infantile Mortality (page 123) under the Maternity and Child Welfare section of this Report. The following Table gives a summary of the position.

Year.	No. of Deaths under 1 year of age.	Infantile Mortality Rate.
1894	609	168
1904	595	192
1914	326	116
1920	311	110
1921	276	109
1922	215	99
1923	210	100
1924	167	84
1925	186	97

In common with many towns of a similar industrial character, the deaths of infants under one month of age (neo-Natal Mortality, page 128) is high, and has been consistently so. For 1925 it was 37.85 per 1,000 births. For past years the following are the figures :—

Year.	Deaths under 1 month of age.	Neo-Natal Mortality.
1894	180	50
1904	143	46
1914	126	45
1920	155	55
1921	126	50
1922	87	40
1923	99	47
1924	60	30
1925	72	38

Maternal Mortality (page 117) has also been high in the past, and again this unenviable distinction is shared with other similar industrial towns. Textile towns in particular suffer most from deaths of women in, or due to, childbirth. The Maternity Mortality rate for 1925 was 5.7 per 1,000 births.

Year.	No. of Deaths in Childbirth.	Death Rate per 1,000 Births.
1894	21	5.8
1904	16	5.2
1914	18	6.4
1920	16	5.7
1921	11	4.3
1922	15	6.8
1923	14	6.7
1924	10	5.0
1925	11	5.7

The Tuberculosis death-rate has fluctuated slightly during the past five years and has not shown any marked reduction. The reduction over the earlier years is, however, pronounced. Tuberculosis is dealt with fully on pages 69 to 99 of the Report.

Year.	Deaths.	Death Rate.
1894	243	1.92
1904	211	1.59
1914	156	1.16
1920	111	0.81
1921	101	0.78
1922	122	0.81
1923	124	0.96
1924	111	0.86
1925	110	0.85

The incidence of the acute notifiable infectious Diseases for the years under review has been as follows :—

Year.	Scarlet Fever.				Diphtheria.				Typhoid Fever.			
	Cases	Incidence Rate	Deaths	Death Rate	Cases	Incidence Rate	Deaths	Death Rate	Cases	Incidence Rate	Deaths	Death Rate
1894	156	1·24	10	0·07	40	0·31	14	0·10	129	1·02	32	0·24
1904	458	3·47	13	0·09	60	0·45	11	0·08	111	0·84	21	0·15
1914	704	5·24	10	0·07	62	0·46	7	0·05	31	0·23	7	0·05
1920	181	1·29	3	0·02	69	0·49	10	0·07	5	0·03	Nil	Nil
1921	211	1·63	1	0·008	45	0·34	6	0·04	2	0·01	Nil	Nil
1922	231	1·78	2	0·01	52	0·40	7	0·05	5	0·04	Nil	Nil
1923	216	1·67	Nil	Nil	35	0·27	1	0·007	3	0·02	1	0·007
1924	70	0·54	1	0·007	62	0·48	3	0·01	3	0·02	Nil	Nil
1925	304	2·39	3	0·02	67	0·53	8	0·06	2	0·01	1	0·007

Of most importance, perhaps, especially in regard to the child population, are the acute Infectious Diseases which are not notifiable, *viz.*, Measles, Whooping Cough, and Chicken Pox. Infectious Diseases occurring in the Borough are dealt with fully on pags 41 to 56.

DEVELOPMENTS OF PUBLIC HEALTH ACTIVITY WHICH HAVE TAKEN PLACE DURING THE PAST FIVE YEARS.

Maternity and Child Welfare. Three new Child Welfare Centres have been established. One at Griffin, one at Kendal Street, and one at School Street. The attendances at all the Centres numbered 14,392 in 1920; in 1925 they were 19,075. There are now held six sessions per week, at all of which a doctor attends.

A Maternity Hospital of six beds was established in the District Nurse's Home in August, 1921. This was transferred to "Springfield," Preston New Road, in 1923, where 20 beds are available. The cases admitted during 1925 numbered 251.

In 1921 an Ante-Natal Clinic was established, and in 1925 the sessions were increased from one a week to two. Expectant mothers made 1,283 attendances in 1925.

The Maternity and Child Welfare activities have been associated with the work of the Venereal Diseases Treatment Centres. The lady

Assistant Medical Officer of Health for Child Welfare is also in charge of the female clinics under the Venereal Diseases scheme. Two sessions a week are held at the Royal Infirmary and one at the Town Hall.

A scheme has also been arranged by means of which cases of Measles, Whooping Cough, Ophthalmia Neonatorum, Tuberculosis, Diarrhœa, and any other diseases referred to them by the Health Committee, are nursed in their own homes by nurses of the District Nursing Association.

The Health Department staff at the Child Welfare Centres is assisted by Voluntary Workers most of whom are, or have been, members of the British Red Cross Society.

Tuberculosis. An X-Ray apparatus for diagnostic purposes was purchased in 1923 and installed at the Corporation Hospital.

A Sanatorium school for pre-Tubercular children was established in May, 1923. In December, 1925, an Artificial Sunlight plant was installed at the Corporation Hospital for treating both the resident patients and non-resident cases referred from other sections of the department.

Infectious Diseases. The arrangements made during the past for the admission of cases of Small Pox into Finnington Hospital from surrounding districts has been extended and now embraces Croston U.D., and the Fylde Water Board employees. The latter authority, together with Accrington, have come to an arrangement to admit notifiable cases of infectious disease into the Corporation Hospital. These two hospitals now serve a population outside the town of equal magnitude to that of the town itself.

Crippling. A scheme for the prevention and treatment of Crippling defects was put into operation in March, 1923.

Food Inspection. Since 1920 a sum of £6,954 has been spent on improvements at the Public Abattoir. The most important works have been (*a*) the provision of a new lairage to accommodate 120 cattle, 350 sheep, and 150 pigs; (*b*) the paving of all passage-ways with impervious material. The revenue at the Abattoir for 1924-1925 was £3,205. In 1919-1920 it was £1,020. Further improvements are contemplated such as (i.) A new pig-killing department with suitable scalding tanks. (ii) The provision of a rest-room and canteen for the employees of lessees. (iii.) Cementing all the walls of the slaughter-houses with impervious cement. Work on this has already commenced.

The number of private slaughter-houses has been reduced from 10 in 1920 to one in 1925.

Many of the farms in the Borough have been modernized, and at the end of 1925 there were 5 producers of Grade A milk selling milk in the Borough: 3 of these had their farms within the Borough. Two producers of Certified (T.T.) milk sent milk into the town, and a third contemplated doing so. (He is now supplying in the town).

Four Clean Milk Competitions have been held.

Power has been obtained from Parliament (Blackburn Corporation Act, 1922) to require the registration of premises where meat food-products are prepared.

Blind Persons Act, 1920. A scheme has been adopted for improving the welfare of the blind by assisting workers at the Blackburn Workshops for the Blind and for co-operating with the Blackburn and Darwen Society for Visiting the Blind. (See page 197).

General Sanitation. In 1920 there were 9,329 privies and pail closets in the town; under a scheme drawn up by the Borough Engineer all save 20 have been converted to the water-carriage system.

The scheme for the abolition of ashpits and ashtubs, and the substitution therefor of galvanised iron bins has proceeded steadily. (See page 179).

Education on Health. A scheme for educating the general public upon Health matters was put into operation at the end of 1920. Up to December, 1925, there have been 33 cinema lectures, 21 lantern lectures, and 170 other lectures and talks. An Health Exhibition of two weeks' duration was held in February, 1925, with an attendance estimated at 30,000; whilst in addition there have been Health sections at two ex-exhibitions, and three other exhibitions devoted entirely to this subject. The attendances have numbered 138,322 up to December, 1925.

Clean Milk Demonstrations, Health Poster Competitions, newspaper articles, health sermons, etc., have also been held during the past five years. This form of Public Health activity has now been legalised by Sec. 67 of the Public Health Act, 1925.

There is still left something to be done. The problem of Houses Let-in-Lodgings remains unsolved; also the growing evil of "Caravan Dwellings." The accommodation for Tuberculous patients at the Corporation Hospital is to be improved by the provision of wider verandahs to the wards. The Clinics accommodation at the Town Hall has for some time past been recognised as unsatisfactory. This is to be remedied by the removal of the Health Department to other premises in Victoria Street.

Atmospheric pollution (Page 172) is greater than it need be, with the consequent unnecessarily high death-rate from Diseases of the Respiratory System.

HOSPITAL ACCOMMODATION PROVIDED OR SUBSIDISED BY THE LOCAL AUTHORITY.

I.—*Tuberculosis.*

A ward of 34 beds is set apart at the Corporation Hospital for the treatment of frank cases of Pulmonary Tuberculosis. A ward of 20 beds is also used as a Residential Open-Air School for malnourished and pre-tubercular children.

Nine beds are reserved for Early Cases sent by the Corporation, at Meathop Sanatorium, Grange-over-Sands.

II.—*Maternity.*

The Springfield Maternity Home, Preston New Road, has accommodation for 20 cases. In addition to the isolation ward of 2 beds, there are two wards of 5 beds each, one ward of 4 beds, one ward of 2 beds and one private ward, which usually contains only one bed but is large enough for two if the need arises.

A fully-qualified matron is in charge, and is supported by a staff of 5 nurses. Patients may be attended by their private doctor if they wish, otherwise they are attended by the trained midwives in the Home. The lady Assistant Medical Officer attends daily to advise and to give treatment in the case of patients who have not engaged a doctor.

A scale of fees is in operation according to the amount of income per head per week. Towards the end of the year the Committee decided to give the Medical Officer of Health power to remit the minimum fee (1½ guineas per week) in cases of proved necessity. This is an important decision, as there is no reason why any mother, whose home surroundings do not lend themselves to the satisfactory carrying out of a confinement, should not avail herself of the facilities and comforts of the Home.

III.—*Children.*

The Local Authority do not maintain a children's hospital. Provision is made for pre-Tubercular cases, at the Corporation Hospital. From April, 1925, an agreement has been entered into with the Board of Guardians, in relation to the residential treatment of Crippled and delicate children. The arrangement places this portion of Queen's Park Hospital under the category of Special Schools.

IV.—*Fever and Small Pox.*

The Corporation Hospital at Longshaw Lane has accommodation for 64 Fever patients in addition to the two wards mentioned under previous headings; making a total of 120 beds. In time of severe epidemic prevalence of infectious disease, accommodation could be made for 36 additional Fever beds, bringing the total Fever bed accommodation to 100. This would not entail disturbance of the Tuberculous patients.

The Finnington Small Pox Hospital has accommodation for 60 beds.

OTHER HOSPITAL ACCOMMODATION.

Blackburn & East Lancashire Royal Infirmary.

I am indebted to the General Superintendent and Secretary for this information :—Male beds, 66; Female beds, 77; Children, 22; total, 165.

The normal bed capacity is only 152, but owing to heavy demands made upon the resources of the institution, beds are placed in the middle of wards.

Queen's Park Hospital (Guardians).

I am indebted to Mr. G. B. Pye, Clerk to the Guardians for the following information :—

On the 1st January last the total number of beds at the Guardians' Institution was 1,350, and the total number of inmates was 1,182. The total number of such inmates who were suffering from sickness, accident or bodily or mental infirmity, including aged and infirm persons requiring regular nursing care or treatment was 1,037.

The total number of sick children on 1st January, 1925, was ...	131
Admitted during the year 1925	436
Discharged or died	430
Number remaining on 1st January, 1926	137

AMBULANCE FACILITIES.

(*a*) *For Infectious Cases.*

The Local Authority have two motor ambulances. They are garaged at the Corporation Hospital.

(*b*) *For Non-Infectious & Ambulance Cases.*

The Watch Committee have provided an ambulance garaged at the Fire Station. The Joint Committee of the British Red Cross Society and the St. John Ambulance Brigade also have an ambulance It is kept at the Fire Station. It is used mostly for out of the Borough cases, but it is available when required for cases within the Borough.

VITAL STATISTICS.

Marriages. The number of marriages solemnised was 1,089, compared with 1,069 in 1924, 1,064 in 1923, 1,084 in 1922, and 1,287 in 1921. The marriage-rate was 17.1 per 1,000 of the population. 571 were solemnised in Established Churches, 376 in other places of worship, and 142 in the Register Office.

Births. The births registered were 1,832 legitimate and 70 illegitimate. The birth-rate consequently was 14.9. For England and Wales the rate was 18.3, and in the 105 Great Towns,—of which Blackburn is one,—it was 18.8.

The illegitimate births in Blackburn were 3.6% of the total, compared with 4.6% in 1924, 4.2% in 1923, 4.5% in 1922, and 4.3% in 1921.

The total male births numbered 981, the female 921, being a proportion of 1,065 males to 1,000 females.

The months with the highest birth-rate were March (17.0) and July (16.4). Those with the lowest were October (10.8) and January (14.3).

Deaths. The deaths numbered 1,767, compared with 1,810 last year; 1,736 in 1923; 1,843 in 1922; 1,655 in 1921. For 1925 the death-rate was 13.9. The death-rate for England and Wales was 12.2, and for the 105 Great Towns 12.2. The male death-rate was 14.6; the female, 13.3.

The months with the highest death-rates were December (18.7) and February (17.2). Those with the lowest were July (8.8), August (8.8), and June (11.9).

Natural Increase. The excess of births over deaths was 135, or 0.94 per 1,000 of the population. A comparison with previous years is given on page 18.

Ward Distribution. The subjoined Table (Table III.) gives the Vital Statistics for the Wards. It is seen that the Wards with the highest Birth Rates were St. Peter's (19.7), St. Paul's (18.0), and St. Mary's (18.2). Those with the lowest were St. Silas's (11.2), St. Thomas's (11.7), and St. Michael's (12.4).

Wards with the highest Death Rates were St. Mary's (21.5), St. Peter's (19.0), St. Paul's (15.2). Those with the lowest St. Silas's (11.4), St. Mark's (11.6), and St. Michael's (11.9).

A reference to Table 5 shows that the Wards with the greatest overcrowding as evidenced by the number of persons per acre (1921

Census) were St. Matthew's (87.1), St. Paul's (79.5), and St. John's (71.1). Those with the least overcrowding were St. Thomas's (7.0), St. Silas's (9.1), and St. Stephen's (9.5).

The following summary is interesting in the light it throws upon the relationships between Birth Rates, Death Rates, overcrowding and social conditions.

TABLE 3.

Highest Birth Rate	Highest Death Rate	Highest Infant Mortality Rate	Greatest Population per Acre	Least Room space per person
St. Peter's	St. Mary's	St. Mary's	St. Matthew's	St. Mary's
St. Paul's	St Peter's	St. Mark's	St. Paul's	St. Luke's
St Mary's	St Paul's	St. Luke's Park	St John's	St. Matthew's St. Peter's Trinity
Lowest Birth Rate	**Lowest Death Rate**	**Lowest Infant Mortality Rate**	**Least Population per Acre**	**Most Room space per person**
St. Silas'	St. Silas'	St. Silas'	St. Thomas'	St Silas'
St. Thomas'	St. Mark's	St. John's	St Silas'	St. Thomas'
St Michael's	St. Michael's	St Stephen's St. Matthew's	St. Stephen's	St. John's St. Mark's

In 1924, St. Mary's had the highest death-rate (18.4), then came St. Peter's (17.6), and St. Paul's (15.9). Exactly the same order as for 1925. St. Mark's last year had the lowest death-rate (9.3), but is this year displaced by St. Silas's (11.4). A peculiar feature is the relatively low death-rate of St. Mark's, but its high infantile mortality rate. Although St. John's is the third most thickly populated district, both its general death-rate and its infantile mortality rate are good.

The Death Rates for the past six years in the various Wards show fluctuations, but certain Wards have a general high level and others a low level. Taking the average death-rates for the six years, the following Wards are the least favourable :—St. Mary's (18.5)—this Ward has the unenviable distinction of repeatedly heading the list,—St. Peter's (16.1), and St. Paul's (14.8). Those with the lowest average were St. Silas's (11.4), St. Mark's (11.4), and St. John's (12.3).

TABLE 4.

Vital Statistics during 1925.

WARDS.	Population.	Births	Deaths	Birth-Rate.	Death-Rate.	Deaths under one year per 1000 Births.	Death-rate from six Zymotic Diseases. excluding Diarrhœa	Death-rate from Diarrhœa	Death-rate from Bronchitis and Pneumonia.	Death-rate from Pulmonary Tuberculosis.	Death-rate from Non-Pulmonary Tuberculosis.
ST. STEPHEN'S...	11044	168	134	15·2	12·1	65	0 0	0·09	2·7	0·5	0·1
TRINITY	8882	118	126	13·3	14·2	101	0·3	0·2	2·1	0·8	0·2
ST. MICHAEL'S..	8993	112	107	12·4	11·9	80	0·0	0·0	1·7	0·6	0·2
ST JOHN'S	7200	97	94	13·4	13·0	61	0·5	0 0	2·6	0·5	0·1
ST. SILAS'	9027	101	103	11·2	11·4	29	0·2	0·0	1·9	0·4	0·0
ST. PAUL'S	9791	177	149	18·0	15·2	107	0·5	0·1	2·9	0·7	0·0
ST. PETER'S......	6732	133	128	19·7	19·0	105	1·1	0·3	2·8	1·1	0·1
ST. MARY'S	5536	101	119	18·2	21·5	188	0·3	0·3	6·8	1·0	0·0
ST. MATTHEW'S	9340	137	123	14·6	13·1	65	0·2	0·0	3·8	0·4	0·2
ST. THOMAS' ...	12092	142	105	11·7	13·6	84	0·1	0·08	2·7	0·8	0·1
PARK	9499	169	131	17·8	13·8	118	0·9	0·1	3·1	0·2	0·1
ST. LUKE'S	7587	118	112	15·5	14·7	118	1·1	0·0	3·0	1·0	0·0
ST. MARK'S	10448	139	122	13·3	11·6	122	0·5	0·09	2·6	0·4	0·1
ST. ANDREW'S...	10729	190	154	17·7	14·3	110	0·3	0·09	2·9	1·2	0·4
BOROUGH	126900	1902	1767	14·9	13.9	97	0·4	0·09	2·9	0·7	0·1

TABLE 5.

Ward Death Rates in Relation to Persons per acre and Room space

1921 Census.

Ward	Death Rate	Persons per Acre	Rooms per Persons
St Stephen's	12·1	9·5	1·08
Trinity	14·2	59·1	1·05
St. Michael's	11·9	14·4	1·10
St. John's	13·0	71·1	1·13
St. Silas'	11·4	9·1	1·50
St. Paul's	15·2	79·5	1·12
St Peter's	19·0	50·5	1·05
St. Mary's	21·5	31·8	1·02
St. Matthew's	13·1	87·1	1·05
St. Thomas's	13·6	7·0	1·28
Park	13·8	14·6	1·08
St. Luke's	14·7	45·1	1·03
St. Mark's	11·6	25·9	1·13
St. Andrew's	14·3	11·6	1·07

TABLE 6.

Death Rates in Wards Past 6 Years.

Ward	1920	1921	1922	1923	1924	1925	Av. of 6 Years
St. Stephen's	14·3	12·4	12·4	12·9	14·8	12·1	13·1
Trinity	13·3	12·2	13·8	16·5	14·8	14·2	14·1
St. Michael's	11·9	12·3	11·3	14·6	12·9	11·9	12·5
St. John's	12·2	11·6	12·0	10·7	14·3	13·0	12·3
St. Silas's	10·5	10·7	11·8	11·7	12·5	11·4	11·4
St. Paul's	12·9	13·9	16·1	14·7	15·9	15·2	14·8
St. Peter's	16·1	14·0	16·7	13·1	17·6	19·0	16·1
St. Mary's	17·1	15·3	20·5	18·3	18·4	21·5	18·5
St. Matthew's	10·7	12·8	12·8	11·6	15·6	13·1	12·8
St. Thomas's	11·5	13·4	12·9	11·8	11·3	13·6	12·4
Park	13·9	11·0	17·7	13·1	14·6	13·8	14·0
St. Luke's	12·6	13·0	15·6	12·9	11·9	14·7	13·4
St. Mark's	10·6	12·8	12·8	11·2	9·3	11·6	11·4
St. Andrew's	12·2	13·4	15·6	16·1	14·8	14·3	14·4
Borough	12·7	12·7	14·2	13·4	14·0	13·9	13·5

TABLE 7.

Vital Statistics of whole District during 1925 and Previous Years.

YEAR.	Population estimated to Middle of each Year	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number.	Nett.				of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.	Number.	Rate.			Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1915	127443	2456	2452	19·2	2184	17·2	164	42	357	145·6	2062	16.1
1916	121066	2067	2065	15·6	1875	15·4	154	58	250	121 0	1779	14·6
1917	113315	1627	1626	12·8	1829	16·1	148	86	180	110·7	1767	15.5
1918	111447	1551	1552	12·4	2265	20·3	178	88	194	125·0	2175	19·5
1919	125992	1835	1838	14·0	2106	16·7	161	63	174	94·6	2008	15·9
1920	127700	2835	2827	22·1	1891	14·8	157	52	311	110·0	1786	13·9
1921	129400	2538	2528	19·5	1753	13·5	157	59	276	109·1	1655	12·7
1922	129376	2207	2177	16·8	1983	15·3	190	50	215	98·7	1843	14·2
1923	129000	2121	2094	16·2	1878	14·5	191	49	210	100·2	1736	13·4
1924	129000	2013	1980	15·3	2013	15·4	250	47	167	84·3	1810	14·0
1925	126900	1948	1902	14·9	1973	15·5	251	45	186	97·7	1767	13·9

TABLE 8.

Deaths registered during the Calendar Year 1925 classified by age and cause.

CAUSES OF DEATH. 1	Nett Deaths at the subjoined ages of "Residents," whether occurring within or without the District. All Ages. 2	Under 1 year. 3	1 and under 2 years. 4	2 and under 5 years. 5	5 and under 15 years. 6	15 and under 25 years. 7	25 and under 45 years. 8	45 and under 65 years. 9	65 years and upwards. 10	Total Deaths whether of "Residents" or "non-Residents" in Institutions in the District 11
All causes Certified	1764	186	53	50	51	72	211	489	652	686
All causes Uncertified	3	...	...	...	.	...	1	...	2	...
Enteric Fever	1	...	...	...	...	..	...	1	...	...
Small Pox	...	...	..	...	...	...	...	...	...	..
Measles	28	8	11	6	3	...	...	...	...	5
Scarlet Fever	3	...	1	1	1	...	...	...	...	3
Whooping Cough	16	4	6	6	...	...	...	...	...	...
Diphtheria and Croup	8	..	...	3	5	...	..	...	...	7
Influenza	34	..	...	...	1	3	9	14	7	3
Erysipelas	...	...	...	..	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)	90	..	...	...	3	26	38	20	3	32
Tuberculous Meningitis	9	...	1	3	2	3	...	...	...	5
Other Tuberculous Diseases	11	1	...	...	1	2	4	3	...	4
Cancer, malignant disease	100	...	..	...	...	1	18	78	63	69
Rheumatic Fever	2	...	...	...	1	...	...	1	...	...
Meningitis	18	4	3	3	2	4	...	2	...	4
Organic Heart Disease	211	2	...	...	8	4	25	66	106	48
Bronchitis	194	23	5	..	3	2	7	47	107	58
Pneumonia (all forms)	176	25	14	21	4	2	32	47	31	38
Other diseases of Resp'itory Org'ns	15	1	1	...	1	...	2	4	6	1
Diarrhœa and Enteritis.	12	9	2	1	.	..	...	...	...	3
Appendicitis and Typhlitis	10	...	...	...	...	...	5	3	1	19
Cirrhosis of Liver	5	...	...	...	...	1	1	3	...	...
Alcoholism	...	...	...	...	...	...	..	..	..	...
Nephritis and Bright's Disease	44	1	...	...	1	...	4	17	21	19
Puerperal Fever	4	...	...	...	...	1	3	..	...	4
Other accidents and diseases of Pregnancy and Parturition	7	.	..	..	...	...	7	...	...	7
Congenital Debility and Malformation, includ'g Prem'ture Birth	68	68	...	...	...	...	...	...	..	19
Violent Deaths, excluding Suicide	46	1	...	1	3	4	7	16	14	43
Suicides	20	...	...	...	...	3	7	8	2	11
Polio-myelitis	...	...	..	...	...	...	..	...	..	...
Venereal Diseases	5	5	...	...	...	...	...	...	..	3
Cerebral Hæmorrhage	65	...	...	...	..	.	1	24	40	21
Arterio-Sclerosis	58	...	...	...	...	...	1	15	42	12
Senile Decay	107	...	...	...	...	...	...	1	106	63
Locomotor Ataxy	4	...	...	...	...	...	...	1	3	2
General paralysis of insane	2	...	...	...	...	..	...	2	...	1
Aneurism	1	...	...	...	...	...	...	1	...	1
Other Defined Diseases	325	33	9	5	11	15	41	112	99	181
Diseases ill-defined or unknown	8	1	...	...	...	1	...	3	3	...
Totals	1767	186	53	50	51	72	212	489	654	686

TABLE 9.

Classification of death according to diseases.

CAUSE OF DEATH.	1915	1916.	1917.	1918.	1919.	1920.	1921.	1922	1923.	1924.	1925	
	Total De'ths	Total De'ths	Total De'ths	Total De'ths	Total De'ths	Total De'ths	Total Deth's	Total De'ths	Total De'ths	Total De'ths	Total Deaths	Death Rate
Enteric Fever	6	2	1	4	1	...	...	...	1	...	1	0·007
Smallpox	...	...	...	...	...	...	...	...	...	...	...	0·00
Measles	44	14	21	39	...	18	3	32	6	20	28	0·22
Scarlet Fever	6	4	2	2	2	3	1	2	...	1	3	0·02
Whooping Cough	39	7	11	26	11	1	20	9	7	7	16	0·12
Diphtheria and Croup	8	9	8	11	3	10	6	7	1	3	8	0·06
Influenza	32	25	14	338	187	59	20	72	49	69	34	0·26
Erysipelas	...	2	2	1	1	...	2	1	2	1	...	0·00
Phthisis (Pulmonary Tuberculosis)	109	115	119	126	116	82	77	96	93	85	90	0·70
Tuberculous Meningitis	14	7	13	17	10	14	5	10	4	4	9	0·07
Other Tuberculous Diseas's	28	22	23	20	17	15	19	16	27	22	11	0·08
Cancer, Malignant Disease	157	136	152	131	165	172	175	163	177	184	160	1·26
Rheumatic Fever	16	10	2	2	2	...	2	...	...	...	2	0·01
Meningitis	18	23	14	21	5	17	13	15	10	11	18	0·14
Organic Heart Disease	232	257	274	214	269	215	214	221	166	204	211	1·66
Bronchitis	263	220	190	189	269	231	163	224	209	238	194	1·52
Pneumonia (all forms)	201	162	155	266	210	178	133	173	189	199	176	1·38
Other Diseases of respiratory organs	15	30	26	27	16	16	19	29	22	21	15	0·11
Diarrhœa and Enteritis	59	29	36	27	26	45	47	26	24	15	12	0·09
Appendicitis and Typhlitis	8	7	16	7	9	12	11	8	9	4	10	0·07
Cirrhosis of Liver	12	7	4	6	3	3	11	5	10	5	5	0·03
Alcoholism	2	4	...	...	...	3	1	...	...	...	...	0·00
Nephritis and Bright's Disease	72	44	46	65	51	52	56	39	53	51	44	0·34
Puerperal Fever	3	4	1	2	5	3	6	1	5	3	4	0·03
Other accidents and diseases of Pregnancy and Parturition	5	4	9	9	6	13	5	14	9	7	7	0·05
Congenital Debility and Malformation, including Premature Birth	112	110	70	73	84	130	104	98	100	59	68	0·53
Violent Deaths, excluding Suicide	33	47	60	52	40	48	46	43	36	49	46	0 36
Suicide	13	25	12	10	8	12	17	20	22	21	20	0·15
Other Defined Diseases	502	419	451	442	428	407	470	511	500	526	567	4·47
Diseases ill-defined or unknown	53	34	35	48	64	27	9	8	5	2	8	0·06
Total	2062	1779	1767	2175	2008	1786	1655	1843	1736	1810	1767	13·92

CAUSES OF DEATH AND SICKNESS.

The chief causes of Death during 1925 were Organic Heart Disease (211 deaths, death-rate 1.66): Bronchitis (194 deaths, death-rate 1.52); Pneumonia (176 deaths, death-rate 1.38); Cancer (160 deaths, death-rate 1.26); and Pulmonary Tuberculosis (90 deaths, death-rate 0.70).

Taking diseases of bodily systems and Group Diseases to which death was definitely assigned, we find :—

	Deaths.	*Death-Rate.*
Respiratory System (Non-Tubercular)	385	3.01
Circulatory System (Non-Tubercular)	270	2.13
Renal System (Non-Tubercular)	44	0.34
Nervous System (Non-Tubercular)	196	1.54
Cancer	160	1.26
Tuberculosis—all forms	110	0.85
Infectious Diseases	90	0.75
Diseases of Babyhood—under 1 year	68	0.53
Diseases of Maternity	11	0.08

The Respiratory group of diseases bulks most largely in the Death Returns of the town. Including Pulmonary Tuberculosis the deaths from diseases of the lungs numbered 475, making a death-rate of 3.71 per 1,000 living. These complaints are predisposed to by impurities in the air breathed, the bodily resistance being lessened meantime by various deleterious factors. The conclusions to be drawn are obvious. Unfavourable climatic conditions, coupled with a dirty atmosphere, are probably the predominant causes for this high death-rate. Blackburn is not peculiar in this respect as the Vital Statistics for the whole country show, year by year, a high respiratory death-rate in the industrial towns of the North as compared with agricultural areas throughout England and Wales.

Organic Heart Disease came next in importance to the above group. 211 deaths were caused in 1925 as compared with 204 in 1924, 166 in 1923, 221 in 1922, 214 in 1921, and 215 in 1920. The rate is seen to remain at a fairly steady figure. Other diseases of the Circulatory system caused 59 deaths. These were all due to arterio-sclerosis, which is a thickening and loss of elasticity of the arterial vessels.

It is safe to surmise that a considerable number of the cases of Organic Heart disease were primarily due to Acute Rheumatism, although the actual deaths registered as due to this latter cause numbered only 2. The foundation for Organic Heart disease is commonly laid in childhood or young adult life. In some, little disturbance is manifested until the more advanced years are reached. In others, an emergency call may be made upon the heart owing to a concurrent acute ailment, and it is found wanting. The death is certified as due to the acute illness, but if the heart had been sound recovery might have supervened. I have dealt with the so-called "growing pains" in my School Report.

Rheumatism. It has been computed that approximately two-thirds of rheumatic heart disease commences during school life, and ultimately somewhere about 18,000 deaths annually occur therefrom in England and Wales. Damp and sunless sites appear to have an effect in predisposing to rheumatic infection, but it is not a slum disease and occurs apparently most frequently in better working-class and middle-class families.

The proper treatment and after-care of cases of rheumatic infection is not possible with the present arrangements for Hospital and Convalescent Treatment. The demand on Hospital beds throughout the country is such, that cases of rheumatic fever and allied rheumatic complaints have to be discharged before they should be. Prolonged nursing, medical and dietetic care, is needed in these patients if their disability is not to lead to ultimate breakdown. A system of Cardiac and Rheumatic Clinics, staffed by specialists and linked up to adequate residential accommodation for both acute and convalescent cases is needed, and doubtless when the present financial stringency is passed, this subject will receive consideration.

Arterio-Sclerosis may be caused by several agents, chief among which are excessive alcoholic indulgence and Syphilis. Sixty-five deaths occurred from Cerebral Hæmorrhage, and it is conservative to say that 90% of those were due to diseased blood vessels. These 65 deaths are included in another category, but their primary causation is an unhealthy condition of the small arteries of the brain. A proportion, also, of the deaths from Senile decay, are fundamentally due to disease of the blood vessels which supply the brain with blood.

Deaths under the Renal Group are understated in the above figures as a number of deaths placed under the heading " Other Defined Diseases " could be included. In the same way the death-rate caused by Diseases of the Nervous System are on the low side.

There appears to be little doubt that during the last decade, the mortality from various afflictions of the Brain and Central Nervous System have increased. The number of people who suffer mental or nervous breakdown at some period of their lives is greater than twenty years ago. Perhaps the more rapid rate of living, the increased calls of modern life and the ever-accentuated struggle for existence, hold the clue. The constant drain upon the reserve of mental energy and the persistent whipping of the tired brain cells, exerts its effect upon the strongest. The weaker break down altogether.

The Infectious Diseases accounted for 90 deaths, and of these Influenza came first with 34 deaths—half the number occurring in 1924; then Measles with 28 deaths or 8 more than in 1924. Whooping Cough came next with 16 deaths. Measles, Whooping Cough, Chicken Pox, and Scarlet Fever were prevalent throughout the town during the latter half of the year. Measles rather falsified the usually accepted law of a two-yearly recrudescence, as in both 1924 and 1925 cases were numerous and widely spread over the whole area. Fortunately there was no epidemic incidence of Influenza.

Deaths from prematurity and the wasting diseases of babyhood rose from 59 to 68. (See pages 128 to 230). Deaths from Violence were 46 as compared with 49 in 1924. There were 20 Suicides as compared with 21 in 1924.

I have dealt with the Cancer Deaths Statistics in a separate section of the Report (Pages 36 to 40).

CANCER.

The Deaths from Cancer numbered 160, as compared with 184 in 1924; 177 in 1923; 163 in 1922; 175 in 1921; and 172 in 1920. There has been, therefore, no apparent definite increase in the deaths during the past five years.

The Death Rates per 1,000 of the population for the past 10 years are as follows :—

1916	1.12	1921	1.36
1917	1.34	1922	1.26
1918	1.17	1923	1.37
1919	1.30	1924	1.42
1920	1.22	1925	1.26

TABLE 10.

Deaths from Cancer in Municipal Wards.

WARD.	Male	Female	Total	Death Rate	Population Census 1921 Male	Population Census 1921 Female
ST. STEPHEN'S	8	7	15	1·35	5062	5959
TRINITY	8	8	16	1·80	4054	4810
ST. MICHAEL'S	5	8	13	1·44	4091	4884
ST. JOHN'S	6	7	13	1·80	3266	3920
ST. SILAS'S	5	4	9	0·95	3842	5167
ST. PAUL'S	2	6	8	0·81	4392	5379
ST. PETER'S	3	9	12	1·78	3250	3469
ST. MARY'S	6	4	10	1·80	2616	2909
ST. MATTHEW'S	2	4	6	0·64	4260	5061
ST. THOMAS'S	5	7	12	0·99	5553	6515
PARK	5	6	11	1·15	4227	5252
ST. LUKE'S	5	3	8	1·05	3471	4101
ST. MARK'S	9	6	15	1·43	4682	5745
ST. ANDREW'S	6	6	12	1·11	4881	5825
TOTAL	75	85	160	1·26	57647	68996

TABLE 11.

Deaths from Cancer occurred at the following ages:

Age Period	Male	Female	Total	No. of population at this age period	Correlation with population
Under 20 years	1	—	1	41753	0·002
20 and under 35 years ...	—	2	2	31596	0·006
35 ,, 45 years ...	4	12	16	19918	0·08
45 ,, 65 years ...	35	43	78	26753	0·27
65 years and over	35	28	63	6880	0·91
	75	85	160	126900	1·26

TABLE 12.
Sites of Fatal Cancer.

Site	Male	Female	Total
Skin	7	1	8
Lip	1	—	1
Tongue	3	—	3
Oesophagus...	5	1	6
Stomach	28	18	46
Liver	2	3	5
Bowel	9	13	22
Rectum	7	—	7
Bladder	—	2	2
Prostate	3	—	3
Larynx	4	2	6
Uterus	—	17	17
Breast	—	20	20
Ovary	—	3	3
Lungs	—	1	1
Mediastinum	—	—	—
Thyroid	—	—	—
Kidney	1	—	1
Bones	2	3	5
Not stated	3	1	4
Total	75	85	160

TABLE 13.

Occupations of Persons Dying from Cancer.

Death Rate per 1000 Employees.

Occupation	Male	Female	Population Census 1921		Death Rate from Cancer per 1000 employees	
			Male	Female	Male	Female
Cardroom Hands	—	3	136	948	—	3·16
Housewives	—	58	—	23317	—	2·48
Cotton Weavers	13	11	6289	7788	2·09	0·62
Carters	3	—	767	10	3·91	—
Labourers	24	—	2984	29	8·04	—
Stonemasons	1	—	76	—	13·15	—
Shoemakers	1	—	184	2	5·43	—
Insurance Agents	1	—	180	3	5·42	—
Winders and Warpers	—	7	64	4108	—	1·70
Overlookers	3	—	188	4	15·95	—
Shopkeepers	7	3	1230	861	5·69	3·48
Licensed Victuallers	1	—	247	127	4·04	—
Clerks	3	—	1596	624	1·88	—
Painters	1	—	450	3	2·22	—
Cotton Mill Managers	1	—	287	10	3·48	—
Dressmakers	—	1	—	175	—	5·71
Cotton Drawers	2	—	564	75	3·54	—
Brass Finishers	1	—	73	—	1·37	—
Tailors	1	—	307	346	3·25	—
Engine Fitters	3	—	753	1	3·98	—
Platelayers	2	—	46	—	21·73	—
Gardeners	1	—	171	1	5·85	—
Postmen	1	—	94	2	1·06	—
Machinist (Tailors)	—	1	307	346	—	2·89
Plasterers	1	—	66	—	1·51	—
Heald Knitters	—	1	28	238	—	4·20
Wood Carvers	1	—	28	—	3·57	—
Cotton Manufacturers	1	—	287	10	3·48	—
Other Cotton Operatives	2	—	1606	440	1·24	—
	75	85	19008	49468	3·94	1·71

Deductions based upon a comparatively small population such as Blackburn are of little value in themselves; but consideration of larger statistics seems to bring out some defined characteristics in the incidence of Cancer. These are :—

Firstly: Organs liable to be exposed to long-continued irritation of any character are peculiarly apt to develop Cancer.

Secondly: Organs which at one period or other of their life, undergo involutary changes seem liable to develop cancerous degeneration, during involution.

Thirdly: There appears to be a tendency for Cancer to develop at an earlier age than formerly. Brownlee believes that the frequency of Cancer is an indication of senesence, and it affords an interesting commentary upon the tendency of Cancer to supervene at an earlier age than in former generations. Does this mean that, under modern conditions of life, the period of youth is shorter and old age earlier in onset?

The theories regarding the origin of Cancer are many and in their very multiplicity is revealed the ignorance surrounding this subject. The recent brilliant researches by Gye and Barnard have thrown some light upon the problem, but research has not, as yet, revealed any methods by which this scourge can be prevented. Whatever the cause, Cancer kills an unnecessarily large number of persons because, the general public have not yet realised the enormous importance of the time factor. Cancer may, in a number of instances, be eradicated successfully, if operative measures are taken in time.

A recent publication by the Medical Research Council on "An Investigation into the Statistics of Cancer in Different Trades and Professions" shows that Textile workers have a definitely smaller amount of Cancer, agricultural labourers still less, while among Miners only three-quarters of the deaths that occur in the social classes embracing upper and middle class, skilled workmen, intermediate and unskilled workmen, are found.

Cancer of the skin is particularly prevalent in chimney sweeps, and is also high in certain processes associated with Cotton manufacture, especially those engaged in mule-spinning. It is frequent also in Textile dyers and manufacturing chemists. There are irritant substances connected with all these occupations and herein seems to lie the causative factor.

Again, Cancer of the lip is most frequent in agricultural labourers, seamen and dock labourers; occupations in which opportunities for excessive smoking are abundant. It is interesting to note that coal miners working below ground where smoking is forbidden, contrast very favourably with colliery workers employed on the surface.

Cancer of the tongue is greatest in brewers, costermongers and hawkers, tobacconists, butchers, and printers. It is remarked in this report that "The list of occupations with unusually low incidence of cancer of the tongue does not include any group with a high death-rate from alcoholic diseases."

The stomach is the most frequent site of Cancer. Although the Blackburn figures are too small to illustrate this point, the report referred to above states "A well-marked excess in the incidence of cancer of the stomach is found in certain occupations connected with the manufacture of cotton and wool." In cotton-weavers the incidence of gastric cancer is quite definitely in excess of the average for workers in all occupations.

My predecessor, in his Report for 1924, included the leaflet of the American Society for the Control of Cancer, which is used in Blackburn. It cannot be repeated too often or too forcibly that as soon as the danger signals set forth in this leaflet manifest themselves, that is the time for submission to thorough medical examination, and surgical treatment if necessary. Many lives would be saved each year if the victims of this scourge would take this advice to heart and act upon it.

A further report on Cancer of the Breast by Dr. Janet Lane-Claypon, issued by the Ministry of Health, establishes one proved fact, namely, that the incidence of Cancer of the Breast is affected by sexual activity. It is more prevalent in unmarried than in married women and among the married it is least common in the most fertile. Normal lactation is a preventative of Cancer of the Breast.

Cancer of the Breast is a very fatal disease, but this high fatality—apart from certain anatomical reasons,—is explained when it is calculated that only 15% of the total cases present themselves for treatment whilst the disease is in the eradicable stage.

Before closing this section it is only right to mention some statistics compiled by a gentleman of Blackburn—Mr. Marwood. Although his deductions may not necessarily be accurate, whilst he is perforce under the disability of dealing only with figures and not with clinical material, yet his investigations have obtained recognition by Medical Officers of Health and serve to illustrate the basic fact that Cancer is a many-sided problem demanding for its solution the best energies of all. Descartes dictum: "What is there then that can be esteemed true? Perhaps this only, that there is absolutely nothing certain," is applicable in all its force to the problem of Cancer at the present time.

TABLE 14.

Cases of Infectious Disease notified during the Year 1925.

NOTIFIABLE DISEASE.	Cases notified in whole District.								Total Cases notified in each Locality.														Total Cases removed to Corporation Hospital.	Total deaths in the Borough
	At all Ages	At Ages—Years.																						
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards	St. Stephen's	Trinity	St. Michael's	St. John's	St. Silas'	St. Paul's	St. Peter's	St. Mary's	St. Matthew's	St. Thomas'	Park	St. Luke's	St. Mark's	St. Andrew's		
Small-pox	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	..
Cholera	...	..	...	...	.	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...		...	...
Diphtheria (including Membranous Croup)	67	...	18	43	5	...	1	...	4	3	3	2	7	11	4	3	2	1	6	9	7	5	58	8
Erysipelas	39	...	...	2	2	14	14	7	...	3	3	5	1	4	2	1	5	3	5	2	4	1	...	...
Scarlet Fever	304		88	188	19	9	..	...	6	15	16	17	16	34	12	14	24	18	32	31	30	39	249	3
Typhus Fever	...	...	...	...	...	...	...	...	...	.	..	..	...		.	...	...	..	...	...	..		...	...
Enteric Fever	2	...	...	...	2	...	...	...	...	...	...		1		..	...	...	...	1	...	...	-	2	1
Puerperal Fever	13	...	...	...	2	11	...	...	...	..	1	...	2	1	1	..	1	2	2	...	1	2		3
Cerebro-spinal Meningitis	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Ophthalmia Neonatorum	25	25	..	...	...	...	...	...	...	...	3	2	...	...	3	2	4	3	3	1	2	2	1	..
Pulmonary Tuberculosis M	82	...	1	14	12	34	19	2	5	6	5	6	4	8	4	9	9	8	3	5	4	6	67	49
Pulmonary Tuberculosis F	87	...	3	13	30	35	5	1	6	5	8	2	4	11	7	9	3	5	8	7	3	9	66	41
Other forms of Tuberculosis M	37	...	5	13	11	7	1	...	4	2	1	3	2	1	6	3	1	2	3	3	3	3	1	11
Other forms of Tuberculosis F	34	...	4	9	7	10	4	...	5	1	3	2	3	3	1	3	...	5	1	2	2	3	2	9
Poliomyelitis	...	...	...	...	..	.	...		...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Encephalitis Lethargica	5	...	...	1	2	...	2	...	...	...	1	...	1		...	...	.	1	.	...	1	1	...	...
Dysentery	...	...	..	...	...	...	...	...	...	...	.	...	...	..	...	...	...	...	...	..	...	...	...	...
Malaria	1	...	...		...	...	..	1	...	...		...	.		...	1		..	...	...	...	..	1	...
Pneumonia	242	16	59	23	28	56	44	16	6	12	11	10	9	25	15	12	20	26	30	13	22	31	...	76
*Diarrhœa	21	12	9	...	...	...	..	...	1	...	1	2	...	3	1	1	5	4	1	...	...	2	...	12
TOTALS	959	53	187	306	120	176	90	27	37	47	56	51	50	101	56	58	74	78	95	73	79	104	447	213

*Notifiable from July 1st to October 31st only.

TABLE 15.

Infectious Diseases.

Age Incidence of Cases Notified.

	Under One Year		1—2 Years		3—4 Years		5—10 Years		11—15 Years		16—20 Years		21—35 Years		36—45 Years		46—65 Years		Over 65 Years		Total		Totals 1920		Totals 1921		Totals 1922		Totals 1923		Totals 1924	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Scarlet Fever	...	..	9	14	31	34	69	84	15	24	3	7	6	6	..	2	..	...	...	...	133	171	79	102	94	117	123	108	87	129	37	33
Diphtheria	...	...	3	1	6	8	13	16	7	6	...	4	2	...	...	1	...	...	...	—	31	36	30	39	23	22	23	29	16	19	21	41
Erysipelas	...	...	...	...	...	...	...	1	1	..	...	2	1	4	4	5	6	8	2	5	14	25	22	37	19	28	22	32	27	25	19	26
Enteric Fever	...	..	.	..	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	..	1	1	1	4	1	1	4	1	2	1	2	1
Puerperal Fever... ...	...	...	...	...	...	...	...	..	..	...	..	...	...	11	...	2	...	..	...	...	...	13	...	12	..	15	...	7	...	12	..	10
Ophthalmia Neonatorum	12	13	...	...	...	...	...	...	...	..	...	..	...	...	..	...	...	...	.	..	12	13	8	14	10	14	10	12	6	9	9	8
Pneumonia Ac. Primary	11	5	15	16	13	15	14	6	1	2	16	2	28	11	18	9	31	14	6	9	153	89	99	59	111	65	157	118	190	153	205	153
Tuberculosis—Lungs ...	...	...	1	1	..	2	9	6	3	7	7	13	23	37	16	15	19	5	2	1	80	87	48	40	90	60	86	59	100	76	77	73
do. other forms	...	...	4	3	1	1	2	6	6	3	7	5	8	9	3	3	1	4	...	...	32	34	23	15	37	34	42	28	40	62	31	32
Encephalitis Lethargica	...	...	...	...	...	...	...	...	...	1	2	...	..	...	...	...	2	...	...	...	4	1	..	2	2	...	1	...	6	4	16	16
Diarrhœa	5	7	6	3	..	...	...	...	...	...	...	...	...	..	...	..	...	...	..	..	11	10	...	...	12	19	...	1	1	1	2	2
Totals	28	25	38	38	51	60	107	119	33	43	36	34	68	78	41	37	59	31	10	15	471	480	310	324	399	375	468	395	481	491	419	395

TABLE 16.

Infectious Diseases.

Case Incidence per 1000 of the population.

	St. Stephen's	Trinity	St. Michael's	St. John's	St. Silas	St. Paul's	St. Peter's	St. Mary's	St. Matthew's	St. Thomas	Park	St. Luke's	St. Mark's	St. Andrew's
Scarlet Fever	0·54	1·68	1·77	2·36	1·77	3.47	1·78	2·52	2·56	1·48	3·36	4·08	2·87	3·63
Diphtheria	0·36	0·33	0·33	0·27	0·77	1·12	0·59	0·54	0·21	0·08	0·63	1·18	0·76	0·46
Erysipelas	...	0·33	0·33	0·69	0·11	0·40	0·29	0·18	0·53	0·24	0·52	0·26	0·38	0·09
Enteric Fever	...	...	...	...	0·11	...	...	...	...	...	0·10	...	..	...
Puerperal Fever	...	...	0·11	...	0·22	0·10	0·14	...	0·10	0·16	0·21	...	0·09	0·18
Ophthalmia Neonatorum	...	...	0·33	0·27	...	...	0·44	0·36	0·42	0·24	0·31	0·13	0·19	0·18
Acute Primary Pneumonia	0·54	1·35	1·22	1·38	0·99	2·55	2·22	2·16	2·14	2·15	3·15	1·71	2·10	2·88
Tuberculosis—Lungs	0·99	1·23	1·44	1·11	0·88	1·94	1·63	3·25	1·28	1·07	1·15	1·58	0·76	1·39
do. Other Forms	0·81	0·33	0·44	0·69	0·55	0·40	1·03	1·08	0·10	0·57	0·42	0·65	0·49	0·55
Encephalitis Lethargica	...	...	0·11	...	0·11	...	...	...	...	0·08	...	...	0·09	0·09
Diarrhoea	0·09	...	0·11	0·27	...	0·30	0·14	0·18	0·53	0·33	0·10	...	...	0·18

TABLE 17.

Shewing number of cases of Infectious Diseases notified from 1906 to 1925.

Disease.	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
Smallpox	...	1	...	2	1	...			...	...	...	...	...	...	...	...	...	...	...	..
Diphtheria (including Membranous Croup)	166	150	100	102	96	107	55	76	62	39	52	50	57	30	69	45	52	35	62	67
Erysipelas ...	112	99	81	94	90	77	87	90	97	69	66	40	52	38	59	47	54	52	45	39
Scarlet Fever...	849	544	595	1013	795	343	116	268	704	460	153	96	150	136	181	211	231	216	70	304
Enteric Fever	82	61	85	69	46	49	26	31	31	44	14	13	13	3	5	2	5	3	3	2
Puerperal Fever	12	25	11	11	10	9	9	8	10	5	5	3	5	5	12	15	7	12	10	13
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Meningitis ...	...	...	...	..	...	...	1	...	...	...	2	...	1	2	...	...	...	...	...	..
Poliomyelitis ..	...	...	.	...	...	...	4	1	...	..	1	...	...	...	1	3	..	1	1	..
Pulmonary Tuberculosis	...	...	...	...	...	...	217	230	212	213	154	131	176	124	88	150	145	176	150	169
Other forms of Tuberculosis	...	...	...	...	...	...	...	104	60	88	49	47	54	47	38	71	70	102	63	71
Ophthalmia Neonatorum	...	...	...	...	...	...	...	...	15	19	15	7	15	18	22	24	22	15	17	25
*Measles...... ..	...	...	...	...	...	...	...	...	...	...	1081	1938	1560	103	...	...	...	...	...	...
Encephalitis Lethargica..	...	...	...	...	...	...	...	...		...	...	...	...	5	2	2	1	10	32	5
Dysentery ...	...	...	...	...	...	...	...	...	..	...	...	...	...	3	1	1	...	...	...	...
Malaria	...	...	...	...	...	...	...	...	..	...	...	..	...	61	18	4	2	1	1	1
Pneumonia ...	...	...	...	...		...	..	...	.	..	...	...	...	114	158	176	275	349	358	242
†Diarrhoea	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	31	1	2	4	21
Totals	1221	880	872	1291	1038	585	515	808	1191	937	1592	2325	2083	689	654	782	865	974	816	959

* No longer notifiable.

† Notifiable from July 1st to October 31st only.

TABLE 18.

Notification of Infectious Diseases.

Disease.	Total cases notified	Cases admitted to Hospital	Total Deaths	Incidence Rate per 1000 of population					Death Rate per 1000 of population					Housing Conditions														
														1925			1924			1923			1922			1921		
				1925	1924	1923	1922	1921	1925	1924	1923	1922	1921	1—3 rooms	4—5 rooms	over 5 rooms	1—3 rooms	4—5 rooms	over 5 rooms	1—3 rooms	4—5 rooms	over 5 rooms	1—3 rooms	4—5 rooms	over 5 rooms	1 - 3 rooms	4—5 rooms	over 5 rooms
Small Pox	...	...	...	0·00	0·00	0·00	0·00	0·00	0·00	0·00	0·00	0·00	0·00	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	304	249	3	2·41	0·54	1·67	1·79	1·63	0·02	0·007	0·00	0·01	0·008	16	100	88	1	46	23	2	151	62	13	151	67	14	124	73
Diphtheria	67	58	8	0·52	0·48	0·28	0·40	0·35	0·06	0·01	0·007	0·05	0·04	2	39	26	...	36	26	...	25	10	4	32	16	2	25	18
Enteric Fever	2	2	1	0·01	0·02	0·02	0·04	0·01	0·007	0·00	0·007	0·00	0·00	...	...	2	...	1	2	...	3	...	...	3	2	...	1	1
Puerperal Fever	13	4	4	0·10	0·07	0·09	0·05	0·10	0·03	0·02	0·03	0·007	0·04	...	...	...	...	...	...	...	...	...	...	..	...	...	...	..
Pneumonia																												
Acute Primary and Acute Influenzal ..	242	...	48	1·90	2·77	2·70	2·13	1·36	0·37	0·69	0·56	0·44	0·30	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...
Erysipelas	39	3	...	0·30	0·34	0·40	0·41	0·37	0·00	0·007	0·01	0·007	0·01	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
Ophthalmia Neonatorum...	25	1	...	0·19	0·11	0·11	0·14	0·17	0·00	0·007	0·00	0·00	0·00	...	...	...	...	...	...	..	...	...	...	...	..	...	...	...
Encephalitis Lethargica ...	5	1	4	0·03	0·24	0·07	0·007	0·01	0·03	0·06	0·02	0·00	0·00	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...
Tuberculosis—Pulmonary																												
Males	82	36	49	0·64	0·59	0·77	0·66	0·69	0·38	0·41	0·42	0·38	0·34	5	51	26	6	46	25	10	62	38	3	41	22	...	...	...
Females	87	45	41	0·68	0·56	0·58	0·45	0·40	0·32	0·25	0·29	0·35	0·25	6	56	25	2	56	18	1	45	30	4	30	24	...	...	..
Total	169	81	90	1·33	1·16	1·36	1·11	1·15	0·70	0·66	0·72	0·74	0·59	11	107	51	8	102	43	11	107	68	7	71	46	..	...	...
Non-Pulmonary--																												
Males	37	2	11	0·29	0·24	0·31	0·32	0·28	0·08	0·07	0·12	0·09	0·08	1	25	11	1	22	8	...	28	1.	1	28	13	...	...	...
Females	34	..	9	0·26	0·24	0·48	0·22	0·26	0·07	0·13	0·11	0·10	0·10	...	24	10	1	23	8	1	45	16	...	23	5	...	...	...
Total	71	2	20	0·55	0·48	0·79	0·54	0·54	0·15	0·20	0·23	0·19	0·18	1	49	21	2	45	16	1	73	28	1	51	18	...	...	...
Diarrhoea	21	...	2	0·16	0·03	0·01	0·007	0·24	0·01	0·01	0·01	0·02	0·30	...	...	...	...	..	..	..	...	...	...	..	...	...	...	...
TOTAL	958	401	180	7·55	6·28	7·56	6·60	6·01	1·42	1·09	1·58	1·52	1·51	42	451	260	21	377	169	26	539	264	33	430	213	16	150	92

HOUSING IN RELATION TO NOTIFIABLE INFECTIOUS DISEASES.

According to the Census of 1921, the room accommodation of the houses in Blackburn was as follows :—

	All Buildings.	Occupied by Private Families. 1 family.	2 families.	3 families.
I.—One to Three Rooms per House	2145	2088	26	11
II.—Four to Five Rooms per House	25906	25188	388	18
III.—Five Rooms per House	3394	3129	72	28

Table 18 shows that 16 cases of Scarlet Fever occurred in Group I.; 100 cases in Group II., and 88 cases in Group III. In past years a similar incidence is shown. There were 2,125 families in Group I., therefore the incidence rate per 100 families in this Group is 0.75. In Group II. it is 3.9, and in Group III. 2.7.

For Diphtheria the relative figures are: Group I., 0.09; Group II., 0.15; Group III., 0.80.

TABLE 19.

Notification of Infectious Diseases.—Room Space in Relation to Infectious Diseases Incidence.

Disease.	1925								1924								1923								1922								1921							
	Admitted to Hospital				Remaining at Home				Admitted to Hospital				Remaining at Home				Admitted to Hospital				Remaining at Home				Admitted to Hospital				Remaining at Home				Admitted to Hospital				Remaining at Home			
	No. of persons p'r room				No. of persons p'r room				No. of persons p' room				No. of persons p'r room				No. of persons p'r room				No. of persons p'r room				No. of persons p'r room				No. of persons p'r room				No. of persons p'r room				No. of persons p'r room			
	Less than one	1—2	More than two	Total	Less than one	1—2	More than two	Total	Less than one	1—2	More than two	Total	Less than one	1—2	More than two	Total	Less than one	1—2	More than two	Total	Less than one	1—2	More than two	Total	Less than one	1—2	More than two	Total	Less than one	1—2	More than two	Total	Less than one	1—2	More than two	Total	Less than one	1—2	More than two	Total
*Scarlet Fever	55	179	10	244	25	35	...	50	15	42	4	61	7	2	...	9	32	131	7	170	20	26	...	46	36	130	8	174	25	32	...	57	31	122	9	162	19	30	...	49
Diphtheria	10	43	...	53	2	12	...	14	21	30	...	51	6	5	...	11	7	16	...	23	7	4	...	11	4	32	2	38	4	9	1	14	5	28	...	33	3	8	1	12
Enteric Fever	...	2	...	2	...	...	...	...	1	1	...	2	1	...	...	1	...	2	...	2	...	1	...	1	1	1	...	2	...	3	...	3	...	2	.	2	..	..	...	...
Total	65	224	10	299	27	47	...	64	37	73	4	114	14	7	..	21	39	149	7	195	27	31	...	58	41	163	10	214	29	44	1	74	36	152	9	197	22	38	1	61

*In 10 cases no data were obtained.

Examination of the above Table shows that in no instance was a case nursed at home if the house population worked out at more than two persons per room. This policy has been pursued during the past five years with only two exceptions—both cases of Diphtheria—one in 1922 and one in 1921.

It will be conceded that the practicability of efficient isolation under conditions where there are more than two persons per room, is not great; whilst the upheaval of the household arrangements is such, that refusal to allow of removal of the patient, is only encountered under most exceptional circumstances. No case occurred in 1925 in which the legal powers given to Local Authorities under the Infectious Diseases Prevention, and the Infectious Diseases Notification Acts, had to be applied.

NOTIFICATION RATES PER 1,000 OF THE POPULATION, 1925.

	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Erpsipelas.
Blackburn ...	None	2.395	0.528	0.015	0.102	0.307
England and Wales	0.14	2.36	1.23	0.07	0.26	9.37

DEATH RATES PER 1,000 OF THE POPULATION, 1925.

	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Erpsipelas.
Blackburn ...	None	0.02	0.06	0.007	0.03	0.00
England and Wales	0.00	0.03	0.07	0.01	0.00	0.00

TABLE 20.

NOTIFICATION RATES AND DEATH RATES FOR BLACKBURN PER 1,000 OF THE POPULATION FOR THE FIVE YEARS 1920-1925.

Notifiable Disease	Notification Rate					Death Rate				
	1921	1922	1923	1924	1925	1921	1922	1923	1924	1925
Small Pox	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Scarlet Fever ...	1·63	1·78	1·67	0·54	2·39	0·008	0·01	0·00	0·007	0·02
Diphtheria	0·35	0·40	0·27	0·47	0·52	0·04	0·05	0·007	0·01	0·06
Enteric Fever ...	0·01	0·04	0·02	0·02	0·01	0·00	0·00	0·007	0·00	0·007
Puerperal Fever ...	0·11	0·05	0·09	0·07	0·10	0·04	0·007	0·03	0·02	0·03
Erysipelas	0·36	0·41	0·40	0·34	0·30	0·01	0·007	0·01	0·007	0·00

SCARLET FEVER.

The number of cases notified rose from 70 in 1924 to 304 this year. This is the highest number recorded in one year since 1915. The great majority were mild, but there was apparent a decided tendency to a more severe type with complications, in the last quarter of the year. Three cases died. Although no undue pressure was exerted to get parents to consent to the removal of their children to the Corporation Hospital, 249 out of the total of 304 (81.9%) expressed their desire for this to be done. In homes where isolation would have been impossible, the facts were pointed out to the parents, and sometimes although obdurate at first, a perusal of the recently compiled pamphlet setting forth the conditions to be fulfilled, not infrequently changed the complexion of affairs, and the parents, quite sensibly, saw that removal to Hospital meant a considerable saving of time, trouble and money.

Although there has been controversy over the influence Isolation Hospitals exert in the prevention of Scarlet Fever—and a perusal of the case incidence over a number of years does not show that there is much effect—it is undoubted that Hospital treatment has exerted and is still exerting a very favourable effect upon the mortality. In industrial towns the policy of universal home nursing of Scarlet Fever is not one to be commended, especially in a town in which a large proportion of mothers go to work.

Table 15 shows that the brunt of the incidence falls on children during school age, *i.e.* 5 to 15 years (61.8%). From 1 to 5 years the incidence is 29%.

St. Andrew's Ward gave the greatest number of cases (39), followed by St. Paul's (34). The relation to the population of the wards is shown in Table 16.

DIPHTHERIA.

There were 67 cases notified during the year and of these, 58 were removed to the Corporation Hospital (86.5%). The incidence of the disease is much less than that for the whole of England and Wales. The number of deaths was 8, giving a case mortality of 11.9%, as compared with a case mortality from Scarlet Fever of 0.98%. These mortalities give a true picture of the relative severity of the two diseases at the present time. Diphtheria is not a highly infectious disease, but it must at all times be regarded as a dangerous one. It is essentially a complaint requiring skilled nursing and early adequate treatment. If given early and in sufficient dosage, Diphtheria Antitoxin is a sure method of treatment. The pity is that cases are not seen early enough, or when seen the administration of antitoxin is delayed. Parents are not blameless in this respect, as, an ordinary sore throat is often thought to be all that ails the child and the seeking of medical aid is put off until more serious symptoms become manifest. Any sore throat, accompanied with prostration and vomiting, should be regarded seriously in a child and considered as Diphtheria until the reverse is proved.

Once again the heaviest incidence is during school age, viz., 64.2%.

The disease was widely scattered with a preponderance of cases in St. Paul's Ward (11), followed by St. Luke's (9).

While dealing with Scarlet Fever and Diphtheria I would like to mention briefly some recent and important work carried out in this country, and particularly in the U.S.A., bearing upon preventive measures. The two tests are known respectively as the Schick Test for Diphtheria susceptibility and the Dick Test for Scarlet Fever susceptibility.

The Schick Test. This test was first worked out in the United States of America. By means of specially prepared toxic sera it is possible to ascertain in about 75% of individuals tested whether they are susceptible to Diphtheria. It is common knowledge that certain people never seem to suffer from infectious disease although exposed freely to the risk. Such persons have what is known as a Natural Immunity, and if tested by means of the Schick Test would in three-quarters of the incidences give a negative result. To complete the Schick method, persons found to be susceptible are given doses of modified Antitoxin in order to raise the natural immunity above the danger line, thus affording protection against a possible attack.

This test is still on its trial in this country, but certain towns, notably Birmingham, are offering the opportunity of submitting to the test, to all persons attending the Maternity and Child Welfare Clinics. Some other towns are refusing to admit candidates as nurses to their Hospitals unless they have submitted to the test. Edinburgh, in particular, has done a lot of work on this subject and the ultimate results will be watched with interest as Edinburgh has had a peculiarly heavy incidence of Diphtheria in the past few years. It is contemplated in

Blackburn to ask all nurses at the Infectious Diseases Hospital to submit to the test, because it has proved to be very helpful in discovering those individuals who are particularly liable to contract Diphtheria if exposed to infection.

The Dick Test originates from the same country as the Schick Test, and although its application is by no means so extensive at present as the latter test, it seems to be of utility. The test is similar to the Schick Test, and is done in the same way by means of a modified form of vaccination.

The work done in this country upon this test is not large as its inception is recent, and the results so far are not so reliable as to warrant the advocacy of its wholesale application.

MEASLES.

This complaint is not notifiable under the Infectious Diseases (Notification) Act. In connection with the Maternity and Child Welfare and the School Medical Departments, however, a fairly high proportion of the total cases are brought to the knowledge of the Public Health Department. The cases notified by parents and teachers numbered 919, compared with 927 in 1924, 427 in 1923, and 1688 in 1922. There were 28 deaths.

Apparently the biennial epidemic of Measles due in 1924, has exerted its influence over two years, and if it follows its recognised course 1926 should show a great diminution in the number of cases. Thirteen cases of Measles were admitted to the Isolation Hospital. 11 cases were nursed at home by the District Nurses under the arrangement with the Corporation. These nurses paid 182 visits.

Measles is now, a more fatal disease than Scarlet Fever. It is particularly prone to attack children under 5 years of age and the mortality is highest at this period of life. If proper nursing is carried out it is not, in the vast majority of cases, a serious disease, but the greatest danger lies in the attitude adopted by many of the public. Measles kills by its complications and its sequelæ, and the incidence of these is largely dependent upon the amount of nursing care expended at the time of the attack. The longer a child evades an attack the less likely it is to occur; susceptibility declines—at least in people of this country—as age advances.

WHOOPING COUGH.

This infectious disease is not notifiable. There were 448 cases of, and 16 deaths due to, Whooping Cough, compared with 172 cases and 7 deaths in 1924; 318 cases and 7 deaths in 1923. No cases were treated at the Corporation Hospital.

INFLUENZA.

This complaint was not so prevalent as in 1924. Thirty-four deaths were certified as due to Influenza, as compared with 69 in 1924; 49 in 1923; 72 in 1922; 20 in 1921; and 59 in 1920. There was a comparatively mild outbreak in November.

The notifications of acute primary or acute influenzal pneumonia received in 1925 were 242; in 1924 they numbered 358. Of these cases, 48 died, giving a mortality of 19.83 per 100 cases.

The following Table is inserted to show, month by month, the relation between Influenza deaths, deaths from Influenzal Pneumonia, and deaths from Bronchitis and Pneumonia.

TABLE 21.

Month.	Deaths from Influenza.	Deaths from Influenzal Pneumonia.	Deaths from Bronchitis and Pneumonia.
January	8	5	56
February	8	0	45
March	4	5	36
April	7	5	27
May	2	8	29
June	0	7	24
July	0	1	13
August	0	2	16
September	0	3	12
October	1	4	31
November	2	5	34
December	2	3	47
Total	34	48	370

There is a singular lack of correlation between these figures, the explanation of which is not definite; discrepancies in notification and mistaken diagnoses may have a bearing on the subject. As would naturally be expected, the summer months show a marked decline in the number of deaths from the enumerated causes.

DIARRHŒA.

Under a local provision this disease is notifiable from July 31st to October 31st of each year. Within this period 21 cases were notified, as compared with 4 in 1924; 2 in 1923; and 1 in 1922.

The deaths numbered 12, which is the lowest figure as yet recorded. (See Table 9). Of these deaths 9 occurred under 1 year of age. This also is the lowest figure reached for this age group. No deaths from Diarrhœa were certified as occurring at any age over 5 years. The death-rate per 1,000 births for the under 1 year group was 4.7. In 1924 it was 6.1. When the large mortalities which were experienced year by year in the first decade of the present century are recollected, the pronounced improvement is a most satisfactory feature. The reason for this decline must be attributed largely to two agencies. Firstly, the work of the Health Visitors and Infant Welfare Centres, whose efforts have led to a better standard of motherhood; and secondly, to the gradual improvement in the sanitary environment. The year under review was exceptionally hot during the late summer months, and much of the same character as in 1911, when the infantile mortality from Diarrhœa reached alarming proportions. In 1925, Hygiene and commonsense had so far triumphed as to be able to record the satisfactory figures given above. The death-rate for England and Wales per 1,000 births for children under 2 years of age was 8.4 and for Blackburn it was 5.7.

NON-NOTIFIABLE INFECTIOUS DISEASES IN CHILDREN UNDER SCHOOL AGE, 1925.

Measles	99
Chicken Pox	26
Whooping Cough	41
Mumps	3

SMALL POX.

Vaccination Return for the Year 1925.

I am indebted to Mr. G. G. Dickinson, the Vaccination Officer, for the figures necessary to compile the subjoined Table.

TABLE 22.

Month	Births	Successfully Vaccinated	Exempted	Died Unvaccinated	Vaccination Postponed	Removed not traced	Removed traced	Unaccounted for	Insusceptible
January ...	157	58	82	12	2	0	2	1	...
February ...	147	52	79	10	1	0	0	5	...
March ...	183	68	92	16	1	0	0	6	...
April ...	175	70	82	12	2	0	0	9	...
May ...	169	42	95	16	4	3	1	8	...
June ...	167	54	89	13	0	0	0	11	..
July ..	179	67	91	12	1	0	0	8	...
August ...	180	55	100	7	1	0	0	17	...
September	150	48	71	16	1	1	1	12	...
October ...	123	23	75	7	2	0	1	15	..
November	165	35	70	9	2	0	0	49	...
December	153	13	72	10	1	0	1	56	...
	1948	585	998	140	18	4	6	197	...

In a total of 1,948 births in Blackburn, 585 or 30.03% were successfully vaccinated, 998 or 51.2% were exempted, and 197 or 10% were unaccounted for. Some of these latter may become vaccinated at a later date. The successful vaccination percentage is the same as in 1924, but the exemption figure has risen from 43%.

A Leaflet supplied by the Publicity Committee on Health is distributed by the Vaccination Officer.

The Finnington Small Pox Hospital remained closed throughout the year, no case of Small Pox having arisen in Blackburn or in any of the areas whose Authorities are under terms of contract, to send cases to this Hospital. The Hospital has, however, been kept in a state of preparedness to receive patients at the shortest notice.

This fortunate immunity from Small Pox should not be allowed to engender a sense of security. Small Pox has been more widely spread and more troublesome during 1925 than for many years past. Various parts of England, notably the Midlands (Derbyshire) and the North-Eastern seaboard areas have had severe visitations. Towards the close of the year southern Yorkshire was becoming implicated.

The mild type of the disease and its, sometimes, anomalous characteristics, have led, unfortunately, to the employment of a new nomenclature which has confused the real issue in the public mind. The basic fact remains that whatever it is called it is an infectious disease which, unless combated energetically, will cause widespread sickness and consequent dislocation of community life. The steps to be taken are prompt notification, and subsequent removal of patients to hosptal; thorough disinfection of infected houses and bedding, the careful tracing and surveillance of contacts; and vaccination or re-vaccination of all persons who have been in contact with a case.

In view of the relatively meagre number of persons who are effectually vaccinated, and the serious consequences which might result if the disease should break out in Blackburn, it is justifiable to insert the following résumé from the Annual Report for 1924 of the Chief Medical Officer of the Ministry of Health. After stating categorically that "whatever be the imperfections of the Vaccination Laws, or rather vaccination system as practised in England, the protection which vaccination and re-vaccination may afford cannot be disputed by anyone who has had actual experience in dealing with this disease." He goes on to say, " The long experience of this country has taught us—

(*a*) That beyond all question the mortality from Small Pox is much less now than in prevaccination times.

(*b*) That the greatest diminution in the Small Pox mortality is found in the early years of life in which there is most vaccination.

(*c*) That in countries in which there is adequate vaccination and re-vaccination relatively to the population, there is little Small Pox.

(*d*) That in houses invaded by Small Pox in the course of an outbreak, not nearly so many of the vaccinated inmates are attacked as of the unvaccinated in proportion to their numbers.

(*e*) That the fatality rate among persons attacked by Small Pox is much greater, age for age, among the unvaccinated than among the vaccinated.

(*f*) That the degree of protection conferred by vaccination corresponds to the quality of the vaccine and to the thoroughness with which the operation of vaccination has been performed.

(*g*) That the protection afforded by vaccination wanes with lapse of time.

(*h*) That improved sanitation, however beneficial in itself, cannot account for these facts.

(*i*) That though early diagnosis, prompt isolation of Small Pox patients in suitable hospitals, effective disinfection, supervision of "contacts," and other such public health methods are invaluable, they are no substitute for vaccination.

CORPORATION HOSPITAL.

The Fever Hospital is situated in Park Lee Road on a site of 10½ acres and at a height of 560 feet above sea level.

There are provided 40 beds for Scarlet Fever, 16 beds for Diphtheria, 10 beds for other Infectious Diseases, 34 beds for cases of Tuberculosis, and 20 beds for Pre-Tubercular and Delicate Children, who are able to attend the Open Air School at the Hospital. The Open Air School is held in one of the original Scarlet Fever Ward blocks and is well away from any of the wards now taking in infectious cases. Should a severe epidemic of infectious disease arise in the town, or in the area of any of the Authorities under contract to send patients, it would be necessary for the Open Air School block to revert to its original function.

A modern X-Ray apparatus is fixed in the old outbathing station in the Hospital precincts and near the Lodge gates. An open Carbon-Arc Artificial Sunlight installation was fitted at the end of the year in the Ante-room to the Open Air School Ward. Since its installation this plant has done a considerable amount of work for the Maternity and Child Welfare, the Tuberculosis and the School Departments.

During the year several improvements were carried out to the structure of the Hospital, especially re-roofing with slates the weather side of the Tuberculosis Ward. The original tiled roofing used throughout is rapidly disintegrating.

A reorganisation of the Domestic side of the institution was effected and a matron appointed, under whom the whole of this aspect of immediate administration was placed. Previously there had been only a Superintendent of Nurses who had no control over the household arrangements.

This change has already resulted in smoother working, greater efficiency and diminished cost. The average cost per patient per week for food only in 1925 was 10/10. For the early part of 1926 it was 8/3. The total cost (including capital charges) for the financial year ended March 31st, 1925, per patient per week was £3/7/0.

It was also decided to abandon the old policy of not engaging probationer nurses for training, and to train suitable candidates for the Fever Nurses' Association Examination. This policy is now pursued.

It is the practice to allow visitors into the Corporation Hospital on two afternoons a week, viz., Wednesdays and Sundays, from 2 to 3. Four visitors were allowed to each patient. Unfortunately, this privilege was abused : patients' friends were found getting into the grounds by subterfuge or by back entrances, and it was not uncommon to find six or more patient's friends in the grounds. The number of visitors allowed was consequently, commencng in December, brought down to the original limit of two—a limit in operation prior to 1923. Since this reduction more order has prevailed, but I am firmly convinced that, in so far as the Diphtheria and Scarlet Fever patients are concerned, the policy of allowing visitors at all is a mistaken one, both from the viewpoint of the patient's welfare and from the mental effect upon the parents.

The disobedience of a visitor to a case of Diphtheria was the direct cause of the death of the child, and in some other cases the visitors have displayed towards medical and nursing requisites a regrettable lack of regard which cannot but act deleteriously. No doubt a mistaken sense of compassion is the cause of this attitude ; but, whatever the cause, it does not lighten the task of the nursing or medical staff in their endeavours to bring about recovery.

To the visitation of Tuberculous patients or of the Residential School Children there is nothing adverse to be said so long as the rules of the Hospital are observed by visitors.

TABLE 23.

CORPORATION HOSPITAL.

	Patients remaining in Hospital on January 1st, 1925			Patients admitted and Discharged in 1925			Patients remaining in Hospital on January 1st, 1926			Analysis of all cases admitted in 1925, whether discharged or not during the year					Average number of beds occ'pied during 1925	Cases rem'ved as expressed as a percentage of total notified
	Total	Re-cover'd	Died	Total	Re-cover'd	Died	Total	Re-cover'd	Died	Total	Re-cover'd	Died	Case Mortality	Av. No. of days in Hospit'l		
Scarlet Fever	15	15	0	239	236	3	20	20	0	274	271	3	1·1	34·7	26·0	81·9
Diphtheria	11	11	0	61	55	6	6	6	0	78	72	6	7·7	35·5	7·6	86·5
Enteric Fever......	0	0	0	3	3	0	0	0	0	3	3	0	0·0	37·0	0·3	100·0
Measles	4	2	2	11	8	3	2	2	0	17	12	5	29·4	22·4	1·0	...
Erysipelas	0	0	0	3	3	0	0	0	0	3	3	0	0·0	19·3	0·1	7·7
Pulmonary Tuberculosis	25*	21	2	105	82	23	30*	10	8	160	113	33	20·6	84·4	37·0	78·7
Chicken Pox	0	0	0	7	6	1	1	1	0	8	7	1	12·5	19·4	0·4	...
Other Diseases ...	0	0	0	23	18	5	0	0	0	23	18	5	21·7	12·2	1·1	...
Pre-Tubercular ... & Delicate Childr'n	16*	14	0	25	25	0	20*	10	0	61	49	0	0·0	119·6	20·0	...
Totals	71	63	4	477	436	41	79	49	8	627	548	53	8·4	57·2	98·2	...

*Two patients admitted in 1924 were still in hospital at the end of 1925.

The Table above gives an analytical summary of all the cases treated in the Corporation Hospital in 1925. It was a busy year. Out of a total of 110 beds, 98 have been continuously occupied, *i.e.* 90%. Four hundred and seventy-seven patients were admitted and discharged during the year, whilst including patients in at the commencement of 1925 (71) and at the end of 1925(79), a total of 627 cases were dealt with. Fifty-three died, giving a case mortality for the whole Hospital of 8.4. The case mortality for the acute infectious fevers was 12.7.

The average number of days of each patient in Hospital, for all classes of patients, was 57.2. For the Tuberculous cases alone it was 84.4; for the Residential School Children, 119.6.

All the available beds for cases of Pulmonary Tuberculosis were continuously occupied, as were those allocated to the Pre-Tuberculous school children.

The following Authorities had arrangements with the Blackburn Corporation whereby cases of infectious disease occurring within their jurisdiction could be admitted to the Corporation Hospital :—Accrington Borough, Rishton U.D.C., Oswaldtwistle U.D.C., cases from the Royal Infirmary, Blackburn, and cases from Queen's Park Hospital; Fylde Water Board.

Similar arrangements with regard to admissions of Small Pox cases to Finnington have been made with : Withnell U.D.C., Clitheroe R.D.C., Chorley Joint Hospital Board, Clitheroe Borough, Bowland R.D.C., Blackburn R.D.C., Great Harwood U.D.C., and Croston U.D.C.

SCARLET FEVER.

The total number of cases admitted during the year as Scarlet Fever was 259. Of these, 9 were negative cases, leaving 250 true cases admitted as such.

249 were cases from within the Borough and 10 from areas outside the Borough. There were two " return " cases during the year.

The following complications and sequelæ occurred amongst the Scarlet Fever patients :—

TABLE 24.

Complication.		*No. of Cases.*
Adenitis		8
Otorrhœa		8
Measles	(1 died)	8
Rhinorrhœa		4
Albuminuria		3

Arthritis		3
Impetigo		3
Nephritis		3
Double Otorrhœa		2
Dermatitis		1
Blepharitis		1
Valvular Disease		3
Otitis Media		1
Mastoid Operation		1
Gastritis		1
Cardiac Failure	(died)	1
Toxæmic Scarlet Fever	(died)	1
Tinea cruris		1

The 9 cases admitted as Scarlet Fever, but later proved not to be suffering therefrom, are included in the above Table. Five of these were cases of Rubella; in 2 no symptoms developed beyond a simple sore throat, in one the diagnosis was Exfoliative Dermatitis, and in the other Tonsillitis.

The following Table gives the ages and sexes of the patients admitted.

TABLE 25.

Ages.	Males.	Females.	Totals.	Deaths.
1—2	1	1	2	1
2—3	5	8	13	—
3—4	11	10	21	—
4—5	19	19	38	1
5—10	55	62	117	1
10—15	18	26	44	—
15—20	4	7	11	—
20—25	4	2	6	—
25—30	1	3	4	—
30 and over	—	3	3	—
Total, 1925	118	141	259	3
Total, 1924	27	35	62	1
Total, 1923	77	104	181	—

The following Table shows the percentage of Scarlet Fever removals in Wards, 1925.

TABLE 26.

Ward.	Percentage.
St. Stephen's	66.6
Trinity	93.3
St. Michael's	68.7
St. John's	94.1
St. Silas's	62.5
St. Paul's	91.1
St. Peter's	91.6
St. Mary's	100.0
St. Matthew's	83.3
St. Thomas's	77.7
Park	96.8
St. Luke's	61.2
St. Mark's	86.6
St. Andrew's	71.7
Total	81.9

Monthly Admissions of Scarlet Fever Cases to the Corporation Hospital during 1925 :—

TABLE 27.

Month	Cases Notified.	Cases Removed.	Percentage of Removals.
January	12	9	75.0
February	15	15	100.0
March	32	20	62.5
April	26	19	73.0
May	27	20	74.0
June	20	19	95.0
July	34	28	82.3
August	25	25	100.0
September	33	29	87.8
October	38	33	86.8
November	25	20	80.0
December	17	12	70.5
Total	304	249	81.9

If Table 27 is read along with Table 18 relating to room space and number of persons per acre, it will prove more interesting. One ward shows 100% removals and this ward also shows the worst figures in relation to room space and population per acre.

DIPHTHERIA.

Sixty-seven cases were admitted to the Hospital certified as suffering from Diphtheria. Three cases were negative, leaving 64 true cases of this disease. The three negative cases proved to be suffering from Follicular Tonsillitis.

There were 9 cases admitted from outside the Borough.

Of the 64 cases of true Diphtheria, 3 had the larynx affected and Tracheotomy was necessary in 2 cases. One of the cases died; the others recovered. There were no return cases of Diphtheria.

The following complications and sequelæe occurred among the Diphtheria patients :—

Complete Palatal Paralysis	....	2
Paralysis of Lower Limbs	....	2
Broncho-Pneumonia	.... (1 died)	2
Laryngeal Diphtheria-Tracheotomy	(1 died)	2
Laryngeal Diphtheria : Broncho-Pneumonia and Measles	....	1
Mumps	....	1
Cardiac Failure	.... (all died)	3
Measles	....	1

TABLE 28.

Incidence of Diphtheria Cases admitted to Hospital.

Ages.	Males.	Females.	Totals.	Deaths.
Under 1 year ...	0	0	0	0
1—2 years	3	1	4	1
2—3 years	1	1	2	0
3—4 years	3	3	6	1
4—5 years	0	6	6	1
5—10 years ...	11	15	26	3
10—15 years ...	7	9	16	0
15—20 years ...	0	3	3	0
20—25 years ...	2	2	4	0
25 years & over..	0	0	0	0
Totals, 1925 .	27	40	67	6
Totals, 1924 .	19	29	48	2

The following Table shows the percentage of Diphtheria removals in Wards, 1925 :—

TABLE 29.

Ward.	Percentage.
St. Stephen's	75.0
Trinity	66.6
St. Michael's	100.0
St. John's	100.0
St. Silas's	100.0
St. Paul's	81.8
St. Peter's	75.0
St. Mary's	100.0
St. Matthew's	100.0
St. Thomas's	100.0
Park	83.3
St. Luke's	77.7
St. Mark's	100.0
St. Andrew's	80.0
Total	86.5

Seven of the wards showed a hundred per cent. removal. The most favourably placed ward as regards Vital Statistics, St. Silas's, had a comparatively high incidence, but all the cases were removed to Hospital. It is evident that the value of night and day nursing in these cases is appreciated. Diphtheria is not a highly infectious disease, but it is a very dangerous one if proper nursing and treatment are not carried out.

The monthly incidence of Diphtheria was :—

Month.	Cases Notified.	Cases Removed.	Percentage of Removals.
January	6	5	83.3
February	8	6	75.0
March	5	5	100.0
April	1	1	100.0
May	3	3	100.0
June	3	1	33.3
July	2	2	100.0
August	11	11	100.0
September	14	10	71.4
October	7	7	100.0
November	3	3	100.0
December	4	4	100.0
Total..............	67	58	86.5

ENTERIC FEVER.

Three cases were admitted into the Hospital during 1925 : 2 males and 1 female. One case, a male aged 16 years, was sent in from out of the Borough. In one of the Borough cases the disease had been contracted while on a visit to France. In the other case shellfish was suspected. The case from outside the Borough contracted the disease in France. All the cases were typical and moderately severe. All recovered. The ages were : M. 19 years, M. 16 years, and F. 15 years.

MEASLES.

Thirteen cases were admitted to the Hospital. Of these 12 cases were admitted on the recommendation of their private doctors and one case was admitted from Queen's Park Hospital.

The following Table gives the ages at which the disease occurred in those cases admitted, their sexes and the deaths occurring.

TABLE 30.

Ages.	Males.	Females.	Totals.	Deaths.
2—3 years	2	0	2	1
3—4 years	1	1	2	1
4—5 years	1	1	2	0
5—10 years	2	1	3	1
10—15 years	2	0	2	0
15 years & over .	0	2	2	0
Total	8	5	13	3

Two of the Measles cases developed Broncho-Pneumonia and both died. The other death was caused by Diphtheria supervening.

OTHER DISEASES ADMITTED.

Chicken Pox: 8 cases, 6 male and 2 female; aged from 1 year to 18 years.

Mumps: 6 cases, 3 male and 3 female; aged from 2 years to 18 years.

Puerperal Fever: 5 cases, aged from 21 years to 36 years. Two babies were admitted with their mothers.

Erysipelas: 3 cases, 2 male and 1 female; aged 10 years to 62 years.

Encephalitis Lethargica: 2 cases, both male, aged 5 years and 42 years.

One case each of Malaria (M. aged 69); Dermatitis (F. aged 32); Influenza (F. aged 27); Hysteria (F. aged 30); Ophthalmia Neonatorum (F. aged 1 month); Tubercular Meningitis (F. aged 10); Pleurisy (F. aged 21); and Ptomaine Poisoning (M. aged 40).

THE FOLLOWING COMPLICATIONS OCCURRED AMONG THESE CASES :—

One of the Chicken Pox cases developed Nephritis and Pneumonia, but recovered; another, who was admitted with advanced Aortic valvular disease, died.

DEATHS AMONG THE OTHER CASES :—

One case of Chicken Pox died from precurrent Heart Disease.

One case of Puerperal Fever.

Two cases of Encephalitis Lethargica.

One case of Tubercular Meningitis.

TABLE 31.

Cases admitted from outside the Borough :

	Male	Female.	Total.	Deaths.
Scarlet Fever ...	4	6	10	0
Diphtheria	2	7	9	2
Encephalitis Lethargica ...	1	0	1	1
Measles	0	1	1	0
Chicken Pox	0	1	1	0
Puerperal Fever	0	1	1	0
Mumps	1	0	1	0
Enteric Fever ...	1	0	1	0
Total	9	16	25	3

Admissions from the Blackburn Royal Infirmary :

	Male.	Female.	Total.	Deaths.
Scarlet Fever ...	0	2	2	0
Chicken Pox	1	0	1	0
Measles	0	1	1	0
Puerperal Fever	0	1	1	0
Total	1	4	5	0

Admissions from Queen's Park Hospital:

	Male.	Female.	Total.	Deaths.
Scarlet Fever ...	1	0	1	0
Chicken Pox	2	1	3	0
Mumps	3	2	5	0
Total	6	3	9	0

Cases from the Blackburn & East Lancashire Royal Infirmary and Queen's Park Hospital are included in the Out-of-the-Borough Table, if the cases sent were not residents of Blackburn.

THE RESIDENTIAL OPEN AIR SCHOOL.

Although I have dealt with this subject in the Report on the work of the School Medical Service, as the majority of the little inmates are Tuberculous or Pretuberculous, details relating to them are relevantly included here.

At the beginning of 1924, there were 11 boys and 5 girls in residence. Of these, 8 had Tubercular Glands, 5 early Pulmonary Tuberculosis, and 3 had been contacts of advanced cases of Tuberculosis.

During the year, 18 boys and 25 girls were admitted. Among these were 4 cases of Tubercular Glands; 21 of early Pulmonary Tuberculosis, 2 had been contacts, and 16 were Pretuberculous. 21 boys and 18 girls were discharged. These included 10 cases of Glandular trouble; 10 of early Pulmonary Tuberculosis; 15 Pretuberculosis; and 4 contacts.

At the end of the year 8 boys and 12 girls were in residence. Two were suffering from Glandular trouble; early Pulmonary Tuberculosis was present in 6 instances; 10 were cases of the Pretuberculous state; one was a Tuberculosis contact, and one child had Chorea.

BACTERIOLOGICAL EXAMINATIONS.

I.—At the Corporation Hospital.

TABLE 32.

Examination and Material.	*Positive* 1925	*Negative* 1925	*Total* 1925	*Total* 1924
For Diphtheria Bacilla (*Swabs*) :—				
From Private Practitioners	42	217	259	249
,, Hospital	70	269	339	183
For Tubercle Bacilli :—				
Sputum—				
From Private Practitioners	37	201	238	267
,, Hospital	329	223	552	680
,, Tuberculosis Dispensary..	25	110	135	241
Urine—				
From Tuberculosis Dispensary..	—	4	4	3
Pus—				
From Hospital	—	2	2	0
For Gonococci :—				
Pus—				
From Private Practitioner	—	2	2	0
,, Hospital	—	—	—	6
For Enteric Fever (*Widal*)* :—				
From Private Practitioners	—	—	—	1
,, Hospital	1	—	1	2
Excretions—				
From Private Practitioners	—	1	1	—
,, Hospital	—	2	2	—
For Ringworm :—				
From Private Practitioners	2	3	5	2
,, School Medical Officer ...	44	53	97	56
Examination of Urine (*Pus, etc.*) :—				
From Private Practitioners	—	3	3	3
,, Hospital	43	65	108	23
,, Tuberculosis Dispensary...	—	—	—	16
Totals	593	1155	1748	1732

---

* Owing to the limited facilities available at the Corpoartion Hospital Laboratory, and the inability of the Resident Medical Officer to spare time from his other duties, it was decided in June to cease examinations of blood for Widal, and of milk for Bacillus Coli and other bacterial content. These specimens are now sent to the Public Health Laboratory, Liverpool.

II.—*At other Institutions.*

TABLE 33.

Nature of Test	Royal Infirmary		Liverpool University		Manchester University		Total
	Positive	Negative	Positive	Negative	Positive	Negative	
For Typhoid—Widal Test	...	..	2	10	...	...	12
For Gonococci—							
For Private Practitioners	...	...	...	..	4	9	13
For V.D. Clinic (B.R.I.)	143	416	...	..	...	...	559
For Spirochetes	...	...	...	...	...	2	2
Wassermann Test—							
For Private Practitioners	...	...	...	...	21	93	114
For V.D: Clinics ...	..	..	..	...	117	481	598
	143	416	2	10	142	585	1298

X-RAY EXAMINATIONS AT THE CORPORATION HOSPITAL.

Three hundred and thirty screenings, 293 films and 22 plates were taken during the year, making a total of 645 exposures. The majority of these were in connection with Pulmonary Tuberculosis; the remainder were for bone or joint Tuberculosis, and also of patients referred with bony or joint deformities from the Orthopœdic Clinic.

TUBERCULOSIS.

THE TUBERCULOSIS SCHEME IN BLACKBURN.

There is one Tuberculosis Clinic situated in specially erected premises in Duke Street. The accommodation provided consists of a waiting Hall from which lead out dressing rooms for men and women; an office, and a nurse's and weighing room. Into this latter the consulting room opens. The premises are heated by gas fires and hot-water pipes and lighted by electric light. The general arrangement is convenient, but the consulting-room is rather dark and noisy as it is in close proximity to a mill.

Clinics are held on Monday, Tuesday, Thursday and Friday afternoons, from 2 to 5 p.m. ; and on Thursday evening from 7 to 9 p.m. The premises are also used once, or, if required, twice monthly for the Orthopœdic Clinic conducted by Dr. Briggs.

At each Tuberculosis session the Tuberculosis Officer, the Tuberculosis Nurse and a clerk are in attendance.

The function of the Dispensary is primarily that of a clearing-house. To it come cases notified by Doctors, or sent by them for diagnosis; cases under observation after undergoing Sanatorium treatment, and cases under treatment at home. From it are drafted patients for Meathop Sanatorium, or the Corporation Hospital. To the former are sent early cases and also those who have been in the Corporation Hospital and have shown good progress there, but who require a further period of Sanatorium régimè. To the Corporation Hospital are sent the more advanced cases, especially those in an infectious condition and those whom it is thought will improve sufficiently to be able to be transferred to the more rigorous treatment at Meathop.

Cases attending the Dispensary for observation or treatment come at such intervals as may be directed by the Tuberculosis Officer. The majority of these persons are having treatment from their panel practitioners, and the Dispensary attendance is for the purpose of regular routine examinations in order to note progress. Very few drugs are dispensed at the Clinic, the chief of them being Cod Liver Oil. Various specific modes of treatment are tried in suitable cases. It has been found that if all treatment is dispensed with, the attendances fall. This is regrettable no doubt, but it is human nature. The aim of the Clinic is to get the patients to come and to advise them in hygienic matters. If it is necessary to hold out a reward for coming, it would, I submit, be false policy not to do so. Advice cannot be given if the patient is not present to advise.

In the beginning of the year the Health Visitors used to visit cases of Tuberculosis in their respective districts. This has now been changed and the Tuberculosis Nurse is entirely responsible for the home visiting of all Tuberculous patients.

The number of beds available for Tubercular patients are 9 at Meathop and 34 at the Corporation Hospital. These figures do not include 20 beds (Residential Open Air School) for Pretubercular and Delicate Children of school age.

THE NOTIFICATION AND MORTALITY OF TUBERCULOSIS.

240 cases of Tuberculosis were notified; of these, 169 were Pulmonary and 71 Non-Pulmonary. 82 males and 87 females were notified as suffering from Pulmonary Tuberculosis; and 37 males and 34 females from Non-Pulmonary. In 1924, the notifications numbered 150; in 1923, 176; in 1922, 145; and in 1921, 150.

The ratio of not notified Tuberculosis deaths to the total Tuberculosis deaths was as 4.4 is to 100.

Of the cases notified in 1925,, 18 males and 19 females died from Pulmonary disease during the year, and 5 males and 6 females from Non-Pulmonary.

TABLE 34.

Age Periods.	New Cases,				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
Years.	M.	F.	M.	F.	M.	F.	M.	F.
0-1	—	—	—	—	—	—	—	1
1-5	1	3	5	4	—	—	4	—
5-10	10	6	4	6	—	—	—	1
10-15	4	7	9	3	1	2	—	2
15-20	7	13	7	5	6	10	2	1
20-25	5	17	4	2	2	8	1	1
25-35	18	20	4	7	15	9	1	2
35-45	16	15	3	3	6	8	1	—
45-55	14	3	1	3	11	2	1	—
55-65	5	2	—	1	6	1	1	1
65 and upwards	2	1	—	—	2	1	—	—
Totals	82	87	37	34	49	41	11	9

The greatest incidence of Pulmonary Tuberculosis is between the ages of 25 and 45 years, *i.e.* the most productive period of life. Herein lies the seriousness and tragedy of this complaint. The Non-Pulmonary incidence is greatest earlier in life—from 5 to 15 years. The largest number of deaths from Pulmonary Tuberculosis was in the 25 to 35 age group. No deaths from Pulmonary Tuberculosis were recorded under

10 years of age. The incidence of Pulmonary Tuberculosis per 1,000 of the population is 1.33, and of Non-Pulmonary 0.56 per 1,000. The incidence per 1,000 of the population at the various ages is shown in Table 35. The 1921 Census figures are taken as the basis of the calculations.

The deaths in 1925 from Tuberculosis of all forms were 110, compared with 111 in 1924; 124 in 1923; 122 in 1922; 101 in 1921; and 111 in 1920. From 1914 to 1919 the deaths each year numbered 156, 151, 144, 155, 163, and 143.

Pulmonary Tuberculosis caused 90 deaths, compared with 85 in 1924; 93 in 1923; 96 in 1922. The Pulmonary Tuberculosis death-rate was 0.71 per 1,000, and the Non-Pulmonary 0.16 per 1,000.

TABLE 35.

Age Period	1921 Census. Population at the age period	Pulmonary				Non-Pulmonary			
		Incidence Rate		Death Rate		Incidence Rate		Death Rate	
		Male	Female	Male	Female	Male	Female	Male	Female
0-5 Years	8668	0·11	·34	—	—	·57	·46	·46	·11
5-10 ,,	10213	·97	·58	—	—	·39	·58	—	·97
10-15 ,,	11497	·34	·60	·08	·17	.78	·26	—	·17
15-20 ,,	11290	·61	1·15	·53	·88	·61	·44	·17	·08
20-25 ,,	10656	·46	1·59	·18	·75	·37	·19	·09	·09
25-35 ,,	20876	·85	·95	·71	·43	·19	·33	·04	·09
35-45 ,,	19878	·80	·75	·30	·40	·15	·15	·05	—
45-55 ,,	16052	·87	·18	·68	·12	·06	·18	·06	—
55-65 ,,	10647	·46	·18	·56	·09	·00	·09	·09	·09
Over 65 ,,	9642	·20	·10	·20	·10	·00	·00	—	—

The following were the Wards from which notified patients came :—

TABLE 36.

Ward	Density of Population. Persons per acre 1921 Census	Pulmonary	Non Pulmonary	Total	Incidence Rate	General Death Rate
St. Stephen's ...	9·5	11	9	20	1·91	12·1
Trinity	59·1	11	3	14	1·49	14·2
St. Michael's ...	14·4	13	4	17	1·88	11·9
St. John's ...	71·1	8	5	13	1·70	13·0
St. Silas's ...	9·1	8	5	13	1·41	11·4
St. Paul's	79·5	19	4	23	2·45	15·2
St. Peter's	50·5	11	7	18	2·66	19·0
St. Mary's	31·8	18	6	24	3·86	21·5
St. Matthew's...	87·1	12	1	13	1·33	13·1
St. Thomas'	7·0	13	7	20	1·60	13·6
Park	14·6	11	4	15	1·58	13·8
St. Luke's	45·1	12	5	17	2·07	14·7
St. Mark's	25·9	7	5	12	1·18	11·6
St. Andrew's ...	11·6	15	6	21	1·97	14·3
	17·0	169	71	240	1·86	13·9

New cases of Tuberculosis coming to the knowledge of the Medical Officer of Health during 1925 otherwise than by notification on Form A or Form B under the Public Health (Tuberculosis) Regulations, 1912 :—

Age Periods.	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total Cases.
Pulmonary Males ...	—	—	—	3	1	—	2	—	—	—	—	6
,, Females ...	—	—	2	1	—	—	1	1	—	—	—	5
Non-Pulmonary Males	—	1	2	2	—	—	—	—	—	—	—	5
,, Females	—	—	—	2	—	—	—	—	—	—	—	2
Totals	—	1	4	8	1	—	3	1	—	—	—	18

The above figures relate to notifications from Institutions and are not classified as primary notifications. They are therefore not included in the preceding Table.

The following Table shows the interval of time elapsing between the date of notification of a patient as suffering from Pulmonary Tuberculosis, and the date of his death from that complaint. In the total of 90 deaths during 1925, 22 (24.4%) were either not notified at all or only notified a month prior to death. Pulmonary Tuberculosis is, in the vast majority of people, a chronic disease and it rarely kills so rapidly that its entire course is only of a month's duration. It must be concluded that either the unfortunate patients omitted to seek advice until they were compelled by exhaustion to do so, or that the medical men in attendance failed to diagnose the condition. The insidiousness and essential chronicity of Tuberculosis is not sufficiently realised by the public. Familiar as they have become with the signs and symptoms of acute disease, they do not recognise the slow advance of Tuberculosis. The diminution of energy, the progressive loss of weight and the cough are not dramatic enough to call for notice. Work is possible—with ever-increasing difficulty and fatigue—in many cases until a very advanced stage of the disease is reached. Most people do not trouble to weigh themselves regularly, and in industrial towns the presence of a cough is so general as to have become commonplace and worthy of no particular attention. In over 50% notification preceded death by six months only.

The notification of Tuberculosis shows signs of improvement. In 1925 4 fatal cases were never notified. In 1924, the figure was 7; in 1923, 10; in 1922,3, and in 1921, 8.

Interval between Notification and Death from Pulmonary Tuberculosis.

Not Notified	Under 1 week	1-2 weeks	2-4 weeks	1-2 months	2-3 months	3-6 months	6-12 months
4	6	5	7	11	5	11	13
One Year	**Two years**	**Three years**	**Four years**	**Five years**	**Six years**	**Seven years**	**8 years and over**
6	7	3	6	1	—	2	3

Total ... 90

TABLE 37.

Occupation and Pulmonary Tuberculosis.

Occupation	Notifications				Deaths.			
			Incidence Rate per 1000 populat'n 1921 Census				Death Rate per 1000 population 1921 Census	
	Male	F'male	Male	Female	Male	F'male	Male	Female
Cotton Weavers	13	26	2·06	1·46	7	18	1·11	1·01
Commercial Travellers ...	2		5·59	...	...	..	...	..
Cotton Winders and Warpers...	...	7		1·70	...	5	...	1·21
Hawkers	1	. .	5·71	...	2		11·42	...
Housewives	...	20	..	0·85	...	3	...	0·12
Dressmakers	...	3	..	17·14	...	2	..	11·42
Brushmakers	1	...	18·18	...	...	..	..	..
Engine Fitters	2	...	2·65	...	2	..	2·65	...
Cotton Spinners	1	5	1·23	4·54	2	1	2·47	0·90
Stonemasons	1	...	13·15	...	...	...	...	...
Cotton Drawers	3	...	5·30	...	1	...	1·75	...
Clerks	5	1	3·13	1 60	3	.	1·88	...
Overlookers	1	...	5·31	...	1	..	5·31	...
Tailors	...	1	...	2·89	2	2	6·51	5·78
Dyers	1	...	7·51	...	...	...	...	...
Domestic Servants ...	...	1	...	0·87	...	...	...	...
Carters	4	...	5·21	...	1	...	1·30	...
Insurance Agents	2	...	11·11	...	1	...	5·55	...
Shoemakers	1	...	5·43	...	1	...	5·43	...
Shopkeepers	1	1	0·81	1·16	2	1	1·62	1·16
Labourers	9	...	3·38	...	11	...	3·69	...
Licensed Victuallers ...	1	...	4·05	...	...	...	...	...
Packers	1	...	4·55	...	..	...	...	...
Laundress	...	1	...	3·77	..	..	...	...
Hotel Porters	1	...	10·00	...	...	...	...	...
Butchers	1	...	*	...	1	...	*	...
School Teachers ...	...	1	...	2·00	...	...	...	..
Other Cotton Operatives...	...	1	...	2·28	2	...	1·24	...
Blind Makers	...	1	...	*	...	...	...	...
Hall Attendants	1	...	62·5	...	...	..	...	...
Ex-Service Men	8	...	*	...	...	...	...	...
Children	13	16	0·86	1·04	1	2	0·06	0·12
No occupation	8	2	*	*	...	4	*	*
Cardroom Hands... ...	...	...	...	...	1	3	7·35	3·16
Stokers	...	...	...	...	1	...	4·09	...
Forrestry Officers	...	...	...	...	1	...	142·85	...
Machine Makers	...	...	...	...	1	...	1·26	...
Joiners	...	...	...	...	1	...	1·88	...
Moulders	...	...	...	...	2	...	3·35	...
Blacksmiths	...	...	...	...	1	...	2·87	...
Pattern-makers	...	...	...	...	1	...	1·37	...

* Separate headings under these designations not given in the Census Returns 1921.

The above Table is intended to serve as a comparison with Table 13 under the Cancer Section. The figures are too small to make accurate deductions, but the compilation of a similar Table over a period of successive years will enhance the value of the findings. The percentage incidence rates and death rates per 1,000 of the population employed in each stated occupation does, however, serve to give a truer picture than a mere list of numbers of cases occurring in various occupations without taking any account of the number of persons actually following those occupations. One death in an occupation employing a hundred or so persons, is a more serious matter than one death among a thousand or so operatives.

Sleeping Accommodation of Notified Cases of Pulmonary Tuberculosis.

The following Table gives particulars of the isolation, or lack of it, of patients suffering from Pulmonary Tuberculosis at the time of notification, and after visitation by the Tuberculosis Officer or Nurse

The figures relate to patients who were at home during the last quarter of 1925.

TABLE 38.

	On First Visit.	Afterwards.
No. who occupy a separate bedroom	80	182
No. who occupied a separate parlour alone	1	1
No. who occupied a kitchen alone	2	2
No. who occupied a shelter in yard	—	—
No. who occupied a separate bed in a room occupied by :—		
One other person	4	6
Two other persons	11	9
Three other persons	4	3
Many other persons (Common Lodging House, &c.)	4	5
No. who occupied a bed in common with :—		
One other person	164	85
Two other persons	26	12
Three other persons	5	2
Two beds in a room :—		
Two persons in each bed	15	9
Three persons in each bed	2	2
Total	318	318

The above Table is interesting when a comparison is made between the two columns, and the good effects of the Nurse's visits are apparent, needing no comments. Whenever it is physically possible, it should be a *sine quâ non* that a case of Pulmonary Tuberculosis should sleep alone, and preferably in a room alone. It is of advantage to the patient and it is a safeguard against other members of the household receiving the massive dose of infection which may determine the swing of the balance between health and sickness.

HOME VISITING OF TUBERCULOUS PATIENTS.

The following visits were paid by the Health Visitors and the Tuberculosis Nurse to the homes of cases, during 1925. As mentioned in a previous paragraph, part of this work was taken from the Health Visitors, and the Tuberculosis Nurse made entirely responsible.

TABLE 39.

	Pulmonary.	Non-Pulmonary.	Total.
No. of visits to new cases	288	124	412
No. of Special visits .	354	386	740
No. of re-visits	1730	922	2652
Total visits	2372	1432	3804

TABLE 40.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912

Summary of Notifications.

Age-periods	Notifications on Form A.													Notifications on Form B					Number of Notifications on Form C	
	Number of Primary Notifications												Total Notifications on Form A	Number of Primary Notifications				Total Notifications on Form B		
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total Primary Notifications		Under 5	5 to 10	10 to 15	Total Primary Notifications		Poor Law Institutions	Sanatoria
Pulmonary Males	...	1	9	3	7	5	18	16	14	5	2	80	82	...	1	1	2	3	15	73
,, Females	...	3	6	7	13	17	20	15	3	2	1	87	91	...	...	...	...	...	8	54
Non-Pulmonary Males ...	...	5	2	6	7	4	4	3	1	..	...	32	34	...	2	3	5	5	4	3
,, ,, Females ...	...	4	6	3	5	2	7	3	3	1	...	34	36	...	...	...	...	...	7	2

New cases of Tuberculosis coming to the knowledge of the Medical Officer of Health or Chief (Administrative) Tuberculosis Officer during the period from the 4th January, 1925, to the 2nd January, 1926, otherwise than by notification on Form A or Form B under the Public Health (Tuberculosis) Regulations, 1912.

Age Periods	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total Cases
Pulmonary Males	...	...	...	3	1	...	2	...	...	...	...	6
,, Females	...	...	2	1	...	...	1	1	...	...	...	5
Non-pulmonary Males	...	1	2	2	...	...	...	...	...	...	...	5
,, Females	...	...	...	2	...	...	...	...	...	...	..	2

Public Health (Tuberculosis) Regulations, 1924.

Number of cases of Tuberculosis remaining on the Registers of Notifications kept by the Medical Officer of Health of the County Borough on the 31st December, 1925.

TOTAL CASES	PULMONARY			NON-PULMONARY		
	Males	Females	Total	Males	Females	Total
842	318	244	562	140	140	280

TABLE 41.

Tuberculosis Dispensary—Work carried out during the year 1925.

DIAGNOSIS.	PULMONARY				NON-PULMONARY				TOTAL			
	Adults		Children		Adults		Children		Adults		Children	
	M	F	M	F	M	F	M	F	M	F	M	F
A.—New Cases examined during the year (excluding contacts) –												
(*a*) Definitely tuberculous ...	48	62	13	14	11	6	18	14	59	68	31	28
(*b*) Doubtfully tuberculous .	...	...	...	...	...	...	..	...	11	6	...	2
(*c*) Non-tuberculous	...	...	...	...	...	...	...	...	31	14	9	9
B.—Contacts examined during the year—												
(*a*) Definitely Tuberculous...	1	3	9	3	...	...	...	...	1	3	9	3
(*b*) Doubtfully tuberculous...	...	...	...	...	...	...	...	...	...	...	..	...
(*c*) Non-tuberculous	...	...	...	...	...	...	...	...	11	14	18	35
C.—Cases written off the Dispensary Register as												
(*a*) Cured	18	15	3	3	4	3	12	14	22	18	15	17
(*b*) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error)	...	...	...	...	...	...	...	...	80	54	40	45
D.—Number of Persons on Dispensary Register on December 31st—												
(*a*) Diagnosis completed......	200	152	57	44	22	26	46	47	222	178	103	91
(*b*) Diagnosis not completed	...	..	...	...	...	...	...	...	5	3	2	5

1. Number of persons on Dispensary Register on January 1st	852
2. Number of Patients transferred from other areas and of "lost sight of" cases returned	11
3. Number of Patients transferred to other areas and cases "lost sight of"	215
4. Died during the year	110

5. Number of Observation Cases under A (*b*) and B (*b*) above in which period of observation exceeded 2 months	7
6. Number of Attendances at the Dispensary (including Contacts)	2522
7. Number of Attendances of Non-Pulmonary cases at Orthopædic Out-stations for treatment or supervision	18
8. Number of Attendances, at General Hospitals or other Institutions approved for the purpose, of Patients for	
(*a*) "Light" treatment	156
(*b*) Other special forms of treatment	47
9. Number of Patients to whom Dental Treatment was given, at or in connection with the Dispensary	43
10. Number of Consultations with Medical Practioners :—	
(*a* At Homes of Applicants	5
(*b*) Otherwise	114
11. Number of other Visits by Tuberculosis Officers to Homes	162
12. Number of Visits by Nurses or Health Visitors to Homes for Dispensary purposes	3804
13. Number of :—	
(*a*) Specimens of Sputum, &c., examined	212
(*b*) X-ray Examinations made in connection with Dispensary work	226
14. Number of Insured Persons on Dispensary Register on the 31st December	325
15. Number of Insured Persons under Domiciliary Treatment on the 31st December	134
16. Number of Reports received during the year in respect of Insured Persons :—	
(*a*) Form G.P. 17	—
(*b*) Form G.P. 36	16

TABLE 42. RESULT OF TREATMENT.

Classification on admission to the Institution		Condition at time of discharge	Duration of Residential Treatment in the Institution.												
			Under 3 months			3 -6 months			6 12 months			More than 12 months			Tot'l
			M	F	Ch	M	F	Ch	M	F	Ch	M	F	Ch	
PULMONARY TUBERCULOSIS.	Class T.B. minus	Quiescent	...	1	...	2	1	2	5	...	...	...	...	...	11
		Improved	4	7	1	4	3	1	2	1	7	...	...	...	30
		No material improvement	...	2	...	1	1	...	...	...	...	...	...	...	4
		Died in Institution	...	1	...	...	..	...	...	...	...	...	...	...	1
	Class T.B. plus. Group 1	Quiescent	2	...	...	...	2	...	...	1	1	...	...	...	6
		Improved	4	1	...	7	5	...	2	3	1	...	...	...	23
		No material improvement	4	...	...	1	...	...	...	...	..	...	...	...	5
		Died in Institution	...	...	..	...	...	..	...	...	...	...	...		...
	Class T.B. plus. Group 2	Quiescent	...	...	...	...	1	...	...	...	...	...	...	...	1
		Improved	2	..	1	5	3	...	3	2	...	...	...	...	16
		No material improvement	...	1	...	3	3	...	1	2	...	...	1	..	11
		Died in Institution	2	2	...	...	...	...	...	...	..	...	...	...	4
	Class T.B. plus. Group 3	Quiescent	...	...	...	...	..	...	...	...	...	...	...	...	...
		Improved	1	...	...	...	2	...	...	...	...	...	...	...	3
		No material improvement	6	2	...	7	5	...	1	2	...	2	..	...	25
		Died in Institution	8	6	...	3	2	...	...	...	..	...	...	...	19
NON-PULMONARY TUBERCULOSIS.	Bones & Joints	Quiescent or Arrested	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved	...	...	...	...	...	...	...	...	...	...	...	...	...
		No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution	...	...	...	..		...	...	..	...	...	...	...	...
	Abdominal	Quiescent or Arrested	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved	..	...	...	...	...	...	...	...	..	...	...	...	...
		No material improvement	...	...	...	...	...	..	...	...	1	...	.	...	1
		Died in Institution	...	...	.	...	...	..	...		...	..	...	.	
	Other Organs	Quiescent or Arrested	...	1	...	...	1	...	...	...	...	...	...	..	2
		Improved	...	...	...	...	...	...	...	...	...	...	...	...	...
		No material improvement	...	...	...	...	...	...	...	1	...	...	...	...	1
		Died in Institution	1	...	...	...	...	...	...	...	...	...	...	...	1
	Peripheral Glands	Quiescent or Arrested	...	...	..	...	...	...	...	...	...	...	...	...	...
		Improved	...	1	...	...	...	2	...	...	4	...	...	...	7
		No material improvement	...	...	...	.	..	...	...	...	..	...	...	...	...
		Died in Institution	...	...	...	...	...	...	...	...	...	...	...	..	...

Observation for purpose of Diagnosis		Under 1 week			1 – 2 weeks			2—4 weeks			More than 4 weeks			
	Tuberculous	...	...	1*	...	...	...	...	...	1*	...	1	3*	6
	Non-tuberculous	...	...	...	...	...	...	...	...	..	1	2	9*	12
	Doubtful	...	...	1*	...	...	...	...	...	...	...	1	6*	8

*Patients in Residential Open Air School : Pre-Tubercular.

TABLE 43.

RESIDENTIAL INSTITUTIONS.

(A) Average Number of Beds Available for Patients during the Year 1925.

	Observation	Pulmonary Tuberculosis		Non-Pulmonary Tuberculosis		Total
		"Sanatorium" Beds	"Hospital" Beds	Disease of Bones and Joints	Other Conditions	
Adult Males	...	5	18	6	...	32
Adult Females	...	4	16	6	...	27
Children under 15	21	...	...	6	...	27
Total	21	9	34	18	...	86

(B) Return showing the Extent of Residential Treatment during the Year 1925.

			In Institutions on Jan. 1st	Admitted during the year	Discharged during the year	Died in the Institutions	In Institutions on Dec. 31st
Number of Patients	Adults	M	24	81	71	13	21
		F	15	68	54	12	17
	Children	M	9	9	12	...	6
		F	3	12	9	...	6
Number of Observation Cases ...	Adults	M	...	1	1	...	...
		F	...	4	4	...	...
	Children	M	3*	11*	11*	...	3*
		F	2*	17*	10*	...	9*
			56	203	172	25	62

* Patients in Residential Open-Air School: Pre-Tubercular

CO-ORDINATION WITH MEDICAL PRACTITIONERS AND BRANCHES OF THE HEALTH DEPARTMENT.

During the year 170 suspected cases of Consumption were referred by private medical practitioners for the Tuberculosis Officer's opinion. 81 were diagnosed as suffering from Pulmonary Tuberculosis, and were subsequently notified. 32% of all notified cases were sent for examination to the Dispensary, or were seen on the request of the Medical Attendant at the patient's home, prior to notification. In 1924 the percentage was 37%.

With all cases notified, contacts of the case are urged to attend the Clinic for examination. A small proportion avail themselves of this facility, but many are working and will not lose work for this purpose.

If it was possible to arrange home examinations of contacts, more cases would be reached. This is not practicable with the present Tuberculosis staff, but the co-operation of private medical men in this branch of work would be very valuable.

Ninety-four contacts were examined in 1925, and of these 16 were found to be suffering from Tuberculosis, and 54 were suspected to be so suffering but were kept under observation pending a decision.

In addition to the contacts examined by the Tuberculosis Officer at the Clinic, 173 were examined in Schools by the Medical Inspector. There were 186 known contacts on the books of the School Medical Service at the beginning of the year and 85 new contacts were added during the year, the total at the end of 1925 therefore being 271. The supervision of contacts of school age is close.

The medical practitioners have been very good in sending cases on Domiciliary Treatment to the Dispensary for periodic examination. Each quarter a notice is sent to the panel practitioner having a domiciliary case asking him either to send the case to the Dispensary or to send in a report of an examination made by him. Practitioners prefer to send the patient whenever this is possible, and it is certainly the better method from the Tuberculosis Officer's point of view. It is far more satisfactory to see and examine a patient than to receive written reports about him without effecting personal contact.

Close co-operation has been maintained as between the various departments of the Public Health Services, each section sending cases for an opinion as the need arose.

The usual Clinical examination is made at the first visit of a patient. This is followed by an X-Ray examination—screening and film—and a sputum test. Tuberculin injections or other uses of Tuberculin have not been used as, in ambulant cases especially, the method is not without danger. There exists also a deep-rooted suspicion in many persons, of the hypodermic needle. When the aim is to set a patient at ease and to encourage amenity to advice, it is foolish to persist in a line of action likely to cause opposition.

GENERAL OBSERVATIONS UPON THE RESULTS OF TREATMENT.

The most striking feature of all Tuberculosis work, and especially so with Pulmonary Tuberculosis, is the general inability of patients to realise fully the prolonged nature of the disease. There is a great need in this work for adequate After-Care. Unfortunately, in Blackburn, apart from the window-cleaning business managed by the Charity Organisation Society for ex-Sanatorium patients, there is no system of After-Care. Cases not infrequently do well in Sanatoria but relapse on their return to their old surroundings.

With full consciousness of the seriousness of the assertion, I maintain that the present methods, throughout the country—are wasteful and not as effectual as was hoped they would be when the Insurance Act, 1911, was passed. For instance, at a time when extra financial aid is required, insurance benefit is cut in half—an instance of economy which is not economical. A patient goes to a Sanatorium and does well, with every hope of complete recovery if he can stay long enough; but he becomes unsettled, as he is worrying about his family who are in dire financial straits owing to the absence of the wage-earner. He requests his discharge and goes home incompletely cured. He goes back to the environment which originally aided his breakdown, and to the same employment which has proved to be deleterious. If he has lost his work owing to long absence, or to the fact becoming known that he is a "Consumptive," there is the added burden of a reduced income. If he undertakes light work of a nature which will help him to overcome his disability, all benefit is promptly stopped, quite irrespective of the pecuniary value of the work undertaken, not as an economic, but as a therapeutic measure. If able to do ordinary work he finds difficulty in obtaining employment, as he has been to a Sanatorium. The public do not yet realise, in spite of propaganda, that the "labelled" Tuberculous patient undergoing, or having undergone, treatment, is of far less danger than the individual who has not been recognised as having the disease, and in consequence has learnt none of those precautions necessary to render an infectious person harmless to his fellows. The careful consumptive is not a menace to the community; the real danger is in the undiscovered cases and those who are careless. If every Consumptive was discovered, and of these everyone was imbued with the Sanitary conscience, in a generation Consumption would dwindle and become one of the rare diseases. Typhoid Fever has been controlled within a generation; Malaria need no longer be a scourge of Tropical countries. The cause is known in both, and the cause is known in Tuberculosis. Typhoid Fever and Malaria have been controlled mainly by mechanical means, and little reliance has had to be placed on human nature. With consumption the chief reliance has to be placed on the individual, and the frailty of the individual is reflected in the comparatively slow advance made in stamping out this scourge..

The treatment of cases in the Corporation Hospital has been carried out on orthodox lines. Artificial Pneumothorax has been utilized in a few cases, but the type of case for which this treatment might prove beneficial, is not often seen at the Hospital. Artificial Sunlight treatment was commenced in selected cases towards the end of the year, and so far has proved beneficial. Tuberculin treatment has not been used. Graduated work and exercise has been given, together with the recognised dietetical measures. It is hoped to extend the graduated work and exercise in 1926. Aimless walking along prescribed paths day after day, with lengthy intervals of idleness, does not conduce to the healthy mind so necessary in these cases. To relieve this, the patients,—since July,—have been allowed out of the Hospital grounds one hour a day: conditional, of course, upon the decision of the Medical Officer, as to their fitness. I am gratified to find that this privilege has not, as yet, been abused. It is hoped, during 1926, to lay down a clock-golf green and a small bowling green for the patients' recreation. The stronger patients will be asked to help towards their formation by doing the lighter work necessary.

The Wireless Installation has been in use the whole year and has been much appreciated. The gramaphone has also rendered useful service, whilst the small billiard table in the men's ward has never been unused during recreation hours. The life of a Consumptive patient in hospital is, of necessity, a monotonous one and the outlook is ofttimes dreary. Gifts of books (novels), gramaphone records, cabinets of games, —not card games,—and similar articles would be extremely welcome. It might be asked: Why not buy them out of the rates? Quite so, this can readily be done; but if someone is willing to give away what someone else wants, why not accept the gift and save the money?

The weather side of the Pavilion was re-roofed with slates in 1925, as the original tiling had perished. During 1926 it is proposed to extend the verandahs, so that patients can sleep out of doors in the roughest weather. At present, if it rains—as it frequently does—any bed cases sleeping out have to be hurriedly brought in with consequent disturbance of the whole ward.

No shelters are provided for use in the home gardens of patients.

Under special arrangements with the Corporation, the District Nurses attend cases of Pulmonary and Non-Pulmonary Tuberculosis in their homes, and render nursing assistance. There is no scheme, administered by the Corporation, for the provision of extra nourishment.

The School Dentist—Miss E. Thomson—devotes some of her time to Tubercular patients. She carried out the following work in 1925 :—

Number of Patients	34
Permanent Teeth extracted	79
Scaling and Polishing	6
Number of Sessions held	8

The following treatment was carried out at Meathop Sanatorium by the Dental Surgeon attached to that institution. The cost of this treatment was borne by the Health Committee, but in some cases a part of the expense was refunded by the patients :—

Number of Patients treated	15
Number of Teeth extracted	88
Number of Teeth filled	2
Number of Scalings	1
Dentures supplied :	
Full Sets	1
Full Upper Set	1
Part Upper Set	1

Combined Treatment and Training. One case was transferred during the year from the Corporation Hospital to the Preston Hall Colony. He was still in the Colony at the end of the year and was apparently successfully holding his own against the disease.

X-Rays. All cases of Pulmonary and Non-Pulmonary Tuberculosis, in whom the diagnosis is not absolutely apparent, are subject to a thorough X-Ray examination. This is carried out at the Corporation Hospital. The number of such examinations in 1925 was :—

	Private Practitioner	Tuberculosis Officer
LUNGS :		
Films	18	245
Screenings	21	271
BONES AND JOINTS :		
Films	4	26
Screenings	6	32
	49	574

THE TREATMENT OF TUBERCULOSIS.

At the beginning of 1925, there were 613 Pulmonary and 286 Non-Pulmonary Tuberculosis cases on the Dispensary Register. During the year the new notifications numbered 169 Pulmonary and 71 Non-Pulmonary; therefore 782 Pulmonary and 357 Non-Pulmonary cases were dealt with. Of this number, 277 Pulmonary and 93 Non-Pulmonary patients' names were removed from the Register for one cause or another, the great bulk being those who had never attended the Clinic. At the end of the year there were, consequently, 505 Pulmonary and 264 Non-Pulmonary cases on the Register. One hundred and eighty-one of these were on Domiciliary Treatment, 192 on Dispensary Treatment, 99 on Dispensary Observation. The large figure of 151 were receiving no treatment. These are cases who are unwilling to place themselves under medical supervision, because they do not feel ill and in the majority of instances are capable of following their occupations. This is an unwise attitude to adopt, for the beginnings of Tuberculosis are as insidious as the end is certain, when once an advanced stage is reached. Tuberculosis is curable if taken early and treated seriously. It is incurable in the more advanced stages. One of the greatest disappointments of Tuberculosis work is to see day by day persons whom, in their mistaken idea of "not giving in," have delayed until the time has passed when treatment can be anything other than palliative.

Particulars relating to the 66 cases who were discontinued as apparently cured, are given in Table 45. There are some instructive facts to be deducted therefrom. Forty-seven of the cases were classified as Early, *i.e.* 71.2% of the total; 27.3% as Intermediate; and 1.5% as Advanced. These percentages may be taken as indicating, fairly accurately, the proportional chances of cure in the three stages. Twenty-one cases had received Institutional treatment (31.8%).

Looking at the dates when notification was received, it may be noted that in the Pulmonary cases 2 had been notified 11 years; 3, 10 years; 1, 9 years; 1, 8 years. Four had been notified 6 years; 8 for 5 years; 9 for 2 years. The period between notification and apparent cure is shorter for the Non-Pulmonary than for the Pulmonary cases.

In 16 instances (24.2%) the original diagnosis was doubtful.

THE TUBERCULOSIS CLINIC.

The following Tables give the number of cases dealt with in 1925:—

TABLE 44.

Tuberculosis Dispensary System.

	Pulmonary	*Non-Pulmonary.*
Cases from 1924	613	286
New Notifications in 1925	169	71
Total dealt with during 1925 ...	782	357

	Pulmonary	*Non-Pulmonary.*
No. died of Tuberculosis	90	20
No. lost sight of	125	40
No. died (death certified not T.)..	9	2
No. removed to other Towns ...	12	6
No. discontinued apparently cured	41	25
	277	93

Number under Supervision, December, 1925.

	Pulmonary	*Non-Pulmonary.*
1. Domiciliary Treatment	127	54
2. Dispensary Treatment	150	42
3. Dispensary Observation	58	41
4. Meathop Sanatorium	9	0
5. Corporation Hospital	30	2
6. Poor Law Institution	24	32
7. Private Doctor	22	15
8. No Treatment	78	73
9. Residential Open Air School ..	3	4
10. Other Institutions	4	1
	505	264
Total	782	357

TABLE 45.

PARTICULARS OF CASES DISCONTINUED DURING 1925.

	Male.	*Female.*	*Total.*
Pulmonary	25	16	41
Non-Pulmonary	11	14	25

YEARS WHEN DISCONTINUED PULMONARY CASES were notified :—

1916		1917		1918		1919		1920		1921		1922		1923		1924		1925	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	...	1	...	...	1	3	1	6	2	3	..	3	2	7	2	...	3		1

YEARS WHEN DISCONTINUED NON-PULMONARY CASES WERE NOTIFIED :— ...

1918		1919		1920		1921		1922		1923		1924		1925	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
...	1	...	1	...	1	1	2	2	2	2	4	2	1	...	...

Cases in which original diagnosis was doubtful :

	Male.	*Female.*	*Total.*
Pulmonary	5	7	12
Non-Pulmonary	1	3	4

No. of Cases which had received Institutional Treatment :—

	Male.	*Female.*	*Total.*
Pulmonary	13	6	19
Non-Pulmonary	1	1	2

STAGE OF DISEASE WHEN NOTIFIED :—

	Early.		Intermediate.		Advanced.	
	M	F	M	F	M	F
Pulmonary	18	12	6	4	1	...
Non-Pulmonary	8	9	3	5	...	...
Total	26	21	9	9	1	...

Criterion of Cure.	Pulmonary.			Non-Pulmonary.		
	M	F	Total	M	F	Total
No evidence of active disease during whole time under observation at Dispensary	19	8	27	7	7	14
No signs of active disease for 1-4 years	4	2	6	3	6	9
,, ,, for 5 yrs. or more	2	6	8	1	1	2
Total	25	16	41	11	14	25

TABLE 46.—Showing the extent of Residential Treatment for Pulmonary Tuberculosis for 1925

			In Institutions on Jan 1st.	Admitted during 1925.	Discharged during 1925.	Died in the Institutions.	In Institutions on Dec. 31st 1925
Meathop Sanatorium.	Adults	M	8	14	17	...	5
		F	3	8	7	...	4
	Children	M	...	1	1	...	...
		F	...	...	...	...	...
Corporation Hospital.	Adults	M	16	66	55	12	15
		F	9	63	47	12	13
	Children	M	...	...	...	...	...
		F	...	3	1	...	2
Residential Open Air School.	Children	M	11	18	21	...	8
		F	5	25	18	...	12
TOTAL...			52	198	167	24	59

TABLE 47.—Table showing the immediate results of Treatment of Patients discharged from the Blackburn Corporation Hospital during 1925

	Condition at time of discharge	PULMONARY TUBERCULOSIS.—Duration of Residential Treatment.												
		Under 3 months			3-6 months			6-12 months			More than 12 months			TOTAL
		M	F	Ch.	M	F	Ch.	M	F	Ch.	M	F	Ch.	
CLASS A Cases in which Tubercle Bacilli have never been found	Quiescent	..	1	...	2	1	...	2	...	...	...	...	...	6
	Much improved	3	7	...	2	2	1	2	...	...	..	...	..	17
	No material improvement	...	2	...	1	1	...	...	...	...	...	...	...	4
	Died in Institution	...	1	...	...	...	...	...	...	...	...	...	...	1
CLASS B 1 Early Cases in which Tubercle Bacilli have been found	Quiescent	1	...	...	...	1	...	...	..	...	...	...	...	2
	Much improved	4	1	...	5	4	...	...	1	...	..	...	...	15
	No material improvement	2	...	...	1	...	...	...	...	...	...		...	3
	Died in Institution	...	...	...	..	...	...	...	...	...	...	...	...	...
CLASS B 2 Intermediate Cases in which Tubercle Bacilli have been found	Quiescent	...	...	...	...	1	...	...	...	...	...	...	..	1
	Much improved	3	..	...	5	3	...	2	2	...	...	...	...	15
	No material improvement	...	1	...	3	3	...	...	1	...	...	1	...	9
	Died in Institution	2	2	...	...	...	...	...	...	...	..	...	...	4
CLASS B 3 Advanced Cases in which Tubercle Bacilli have been found	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...
	Much improved	1	...	...	...	2	...	...	...	...	...	...	...	3
	No material improvement	6	1	...	7	5	...	1	2	...	1	...	...	23
	Died in Institution	7	7	...	3	2	...	...	...	...	...	...	...	19
	Final Diagnosis	Under 1 week.			1-2 weeks.			2-4 weeks.			More than 4 weeks.			
Observation for purposes of diagnosis	Tuberculous	...	...	...	...	...	...	...	...	...	...	1	...	1
	Non-Tuberculous	...	...	...	...	...	...	...	...	...	1	2	...	3
	Doubtful	...	...	...	...	...	...	...	...	...	...	1	...	1
	Total	29	23	...	29	25	1	7	6	...	2	5	...	127

TABLE 48.—Annual return showing the immediate results of treatment of patients discharged from Meathop Sanatorium during the year 1925

	Condition at time of discharge.	PULMONARY TUBERCULOSIS.—Duration of Residential Treatment.												TOTAL
		Under 3 months			3-6 months			6-12 months			More than 12 months			
		M	F	Ch.	M	F	Ch.	M	F	Ch.	M	F	Ch.	
CLASS A Cases in which Tubercle Bacilli have never been found	Quiescent	...	...	...	...	...	1	3	...	...	...	...	...	4
	Much improved	1	...	...	2	...	...	...	1	...	...	...	...	4
	No material improvement	...	...	...	...	...	...	...	...	...	...	...	...	...
	Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...
CLASS B 1 Early Cases in which Tubercle Bacilli have been found	Quiescent	1	...	...	...	1	...	...	1	...	...	...	...	3
	Much Improved	...	...	...	2	1	...	2	2	...	...	...	...	7
	No material improvement	2	...	...	...	...	...	...	...	...	...	...	...	2
	Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...
CLASS B 2 Intermediate Cases in which Tubercle Bacilli have been found	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...
	Much improved	...	...	...	...	...	...	1	...	...	...	...	...	1
	No material improvement	...	...	...	...	...	...	1	1	...	...	...	...	2
	Died in institution	...	...	...	...	...	...	...	...	...	...	...	...	..
CLASS B 3 Advanced Cases in which Tubercle Bacilli have been found	Quiescent	...	...	...	...	...	...	...	...	...	...	...	...	...
	Much improved	...	...	...	...	...	...	...	...	...	...	...	...	...
	No material improvement	1	...	...	...	...	...	...	...	...	1	...	..	2
	Died in Institution	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	5	...	...	4	2	1	7	5	...	1	...	...	25

TABLE 49.

Conditions at end of 1925 of Patients treated at and discharged from Blackburn Corporation Hospital.

Year Dis-charged	At full work. No Symptoms 1	At full work, but with difficulty 2	Not able to work full time owing to ill health 3	Not able to work but able to get about 4	Confined to the house 5	Confined to bed 6	Died (not in the Institution at time of first admission) 7	Cannot trace 8	Total
1913	16	3	...	1	...	...	42	29	91
1914	12	...	...	1	...	...	36	19	68
1915	3	...	1	2	...	1	58	8	73
1916	3	2	...	...	...	...	46	5	56
1917	6	...	1	...	...	1	29	1	38
1918	10	1	1	1	...	...	38	6	57
1919	18	5	2	3	...	...	41	4	73
1920	15	4	1	5	...	1	45	2	73
1921	12	4	7	9	...	...	43	2	77
1922	23	8	7	12	...	1	47	5	103
1923	22	17	9	22	2	1	48	2	123
1924	6	11	10	27	4	4	37	2	101
1925	1	10	12	47	2	2	24	5	103
Total	147	65	51	130	8	11	534	90	1036
%	14·2	6·3	4·9	12·5	0·8	1·1	51·5	8·7	...

TABLE 50.

Condition at end of 1925 of Patients treated at and discharged from Meathop Sanatorium,

Year Dis-charged.	At full work. No Symptoms 1	At full work, but with difficulty 2	Not able to work full time owing to ill health 3	Not able to work, but able to get about 4	Confined to the house 5	Confined to bed 6	Dead 7	Cannot trace 8	Total
1908	1	...	..	...	...	...	2	2	5
1909	...	...	...	...	...	...	10	5	15
1910	1	...	...	1	...	...	16	5	23
1911	1	1	...	...	...	...	14	1	17
1912	...	...	...	...	...	...	16	3	19
1913	9	...	...	1	...	...	13	13	36
1914	14	1	...	...	...	...	12	11	38
1915	7	...	...	...	...	...	14	11	32
1916	9	...	...	1	...	...	16	4	30
1917	11	1	...	2	...	...	19	3	36
1918	7	3	2	2	...	...	23	3	40
1919	14	3	3	4	...	...	17	7	48
1920	12	4	2	4	...	...	17	3	42
1921	15	4	4	7	...	...	7	5	42
1922	4	3	3	2	1	...	6	3	22
1923	2	5	1	4	1	...	7	4	24
1924	2	6	2	8	1	...	7	...	26
1925	...	5	2	12	2	1	3	...	25
Total	109	36	19	48	5	1	219	83	520
%	20·9	6·9	3·7	9·3	0·9	0·2	42·2	15·9	...

TABLE 51.

Summary of Dispensary Statistics and of Home Visiting.

	1925.	1924.
Number of persons placed under observation for purpose of diagnosis	71	85
Number of persons for whom the period of observation exceeded two months	19	33
Number of visits paid by the Tuberculosis Officer to the homes of patients	162	156
Number of visits paid by Nurses to the homes of patients for dispensary purposes	3804	4078
Number of attendances of patients at the Dispensary :—		
Insured	1788	2153
Not Insured	734	944
Total	2522	3097
Number of patients under Domiciliary Treatment :—		
Pulmonary	127	335
Non-Pulmonary	54	34
Total	181	369
Number of reports received from practitioners in respect of patients on Domiciliary Treatment	16	27
Number of specimens of sputum examined in connection with the work of the Dispensary :		
Positive	25	40
Negative	110	201
Total	135	241
Number of houses disinfected during the year :—		
(i) On removal of patient to Hospital	132	113
(ii) On death	65	59
(iii) On changing address	3	8
Number of Reports made to Local War Pensions Committee by the Tuberculosis Officer on general progress and capacity for work of Tuberculous Discharged ex-Service men	152	183

TABLE 52.

AGES AT DEATH FROM PULMONARY TUBERCULOSIS, 1901-1925.

YEARS.	0-5 a	5-10 b	10-15 c	15-20 d	20-25 e	25-35 f	35-45 g	45-55 h	55-65 i	Over 65 j	Total
1901—1921	98	47	72	229	285	573	587	406	203	46	2546
1922	...	1	5	12	12	25	27	8	5	1	96
1923	1	2	4	9	11	15	20	18	10	3	93
1924	2	1	2	10	13	21	12	11	11	2	85
1925	...	...	3	16	10	24	14	13	7	3	90
Grand Total 25 years	101	51	86	276	331	658	660	456	236	55	2910

Perusal of the above Table shows that the average number of deaths in the first two periods given (*a* and *b*) is less in the last four years than in the 21 years previously. It remains practically unchanged in periods *c* and *d*. It shows a little diminution in periods *e* and *f*; a considerable reduction in periods *g* and *h*, a slight reduction in period *i*, whilst in ages over 65 (period *j*) it remains unchanged. For the whole period of life the number of deaths have fallen from an average of 121 per annum in 1901-1921 to 91 in 1922-1925. There is apparent, therefore, a steady reduction which, however, seems to have become slower in recent years.

NON-PULMONARY TUBERCULOSIS.

During the year 24 deaths were certified to be due to Non-Pulmonary Tuberculosis, compared with 26 in 1924, 31 in 1923, and 26 in 1922. The deaths were due to :—

	Male.	*Female.*
Tuberculous Meningitis	6	3
Tuberculous Peritonitis	1	3
Spinal Caries	2	2
Tabes Mesenterica	1	1
Miliary Tuberculosis	0	1
Bone and Joint Tuberculosis	1	0
Tuberculous Enteritis	0	1
Tuberculous Kidney	1	0
Tracheal Tuberculosis	1	0

In Table 34 only 20 deaths are given. The 4 included above were cases of Non-Pulmonary Tuberculosis in which Pulmonary Tuberculosis supervened and caused death. The original cause of death, however, was a Non-Pulmonary condition; the actual cause of death was Pulmonary.

Seventy-one cases of Non-Pulmonary Tuberculosis were notified. The diagnoses were :—

	Male.	*Female.*
Tuberculous Glands of Neck	11	13
Tuberculous Bronchial Glands	3	0
Abdominal Tuberculosis	9	3
Meningeal Tuberculosis	3	2
Spinal Caries	1	3
Tuberculous Joint Disease	5	7
Tuberculous Bone Disease	2	2
Lupus	2	1
General miliary Tuberculosis :—		
Testis	1	0
Auxiliary Gland	0	2
Larynx	0	1

The Blackburn Board of Guardians have enlarged their provision for these cases in the special annexe attached to their Queen's Park Hospital. The accommodation, when fully completed, will be commodious and eminently satisfactory.

Some cases are also operated on and treated at the Blackburn and East Lancashire Royal Infirmary, and at various Manchester and Liverpool hospitals.

BONE AND JOINT TUBERCULOSIS.

Orthopædic Clinic. I have given a full account of this Clinic in the School Medical Services Report for 1925. Dr. W. Briggs held 14 sessions; 114 patients were examined and the attendances numbered 144. Of these cases, 14 suffered from Tuberculous Bone or Joint disease. Twenty-eight X-Ray examinations were made on these patients.

VENEREAL DISEASES.

The scheme in operation in the Borough consists of (*a*) Clinics held at the Blackburn and East Lancashire Royal Infirmary, for men and for women. The males attend on Tuesday and Friday; the women on Monday and Thursday. All the Clinics are held in the evenings, and are conducted on recognised lines. (*b*) A Special Clinic is held at the Town Hall on Tuesday mornings in connection with the Maternity and Child Welfare Department. The Medical Officer in charge of the Male Clinics is Dr. W. Cran Duthie, who is not otherwise connected with the Health Department. Dr. Ella Mackenzie is in charge of the Female Clinics and of the Special Clinic held at the Town Hall. Dr. Mackenzie is a whole-time officer of the Health Department. I am indebted to both Dr. Duthie and Dr. Mackenzie for the figures given in connection with this branch of work.

The Scheme at the Infirmary has remained unaltered since 1920, and is apparently quite capable of meeting all demands. The Special Town Hall Clinic was commenced in 1922 for the purpose of enabling mothers to obtain treatment with even less publicity than was possible at the Infirmary. It also helped to draw closer, the desired association of the Venereal Diseases Scheme with Maternity and Child Welfare.

The following Table gives the number of new cases seen yearly at the Clinics held at the Blackburn Royal Infirmary, since 1920 :—

	Male.	Female.	Total.
1920	443	167	610
1921	334	191	525
1922	258	155	413
1923	264	154	418
1924	243	148	391
1925	225	131	356

During the year 18 male and 12 female Venereal cases were admitted as in-patients to the Royal Infirmary. Ten male and 2 female in-patients were suffering from Syphilis, 6 male and 6 female from Gonorrhœa, and 1 male and 4 females from both complaints. In 1 male and 1 female the diagnosis was subsequently changed to a non-venereal disease. The aggregate number of in-patient days was for Syphilis: males, 96 days; females, 90 days; for Gonorrhœa: males, 260 days; females, 461 days. One male was admitted for one day suffering from a non-venereal affliction.

The attendances at the Clinics were: 9,824 for males and 2,349 for females. These figures are divided up as follows:—3,700 attendances by the males for individual attention of the medical officer; and 1,833 attendances of females for the same purpose. For intermediate treatment such as irrigations, dressings, etc., the males made 6,124 attendances, and the females 516.

The figures for irrigation in 1922 were, 1,930; 1923, 4,062; 1924, 5,371; 1925, 6,640.

Thus, although there were fewer new cases, the patients were more diligent in carrying out treatment, a sign which is encouraging as denoting a greater sense of responsibility. As is usual, the attendance of women was not as satisfactory as of men.

New cases during 1925 at all centres, including the attendance of Blackburn patients at Clinics outside the town, numbered 225 male and 132 female. The following Table shows the diagnoses made in respect of these patients.

TABLE 53.

	B. & E. L. R. I.		Town Hall	Lewis Hospital Liverpool	Salford Royal Infirmary	Preston Royal Infirmary
	Male	Female	Female or Children only	Sex not stated	Female	
Syphilis	39	38	31	1	...	Not classified
Soft Chancre... ...	3	...	...	...	...	
Gonorrhœa	85	27	37	...	...	
Conditions other than Veneral	98	66	65	...	1	
	225	131	133	1	1	43

The total recorded attendances made by Blackburn residents attending for the first time, and not including subsequent attendances, at any Venereal Disease Clinic were 491, and in 230 the condition was found to be not Venereal. There were therefore 261 new cases of Venereal Disease in Blackburn who sought treatment at a recognised Centre. This figure must not be taken as any indication of the prevalence of these diseases in the Blackburn community. It is impossible to obtain any reliable statistics upon this point, but the trend of opinion is that Venereal Diseases are steadily declining. For many, the decline seems far too slow, and there are advocates of various prophylactic methods who think that these complaints could be greatly mitigated if certain measures were taken. To every picture there are two sides. In a carefully thought out paper, Mr. Cyril Burt sums up his conclusions as follows : "Were I to sum up the chief conclusions of my paper in a single sentence, I should say that the main contribution made by modern psychology to social hygiene lies in the study of individual differences. The study of individual differences in intelligence, on the one hand, and in emotion, on the other, has formed the chief line of advance in recent mental science. The practical deduction has not perhaps been so widely stressed; but it is obvious, once the facts are admitted. It is to treat each child or person as a unique individual, with his own peculiar needs, with a special constitution, a special history, a special problem of his own, and, if we could only find it, a special place to fill, where his talents may be used and developed, and Society be the gainer rather than the loser by his short life in its midst."

The diseases dealt with in this section are to be included in the group of diseases which have been termed "Anti-Social Diseases." Alcoholism is a prominent member of this group. This problem of the Anti-Social diseases is one which merits the careful consideration of all who have the welfare of the Public Health at heart. A no small proportion of the economic burden borne by the community at large is the result of the selfish habits of some section of the community. So far our laws take no notice of the man or woman who causes loss of life through his or her carelessness in Health matters. Although public opinion has already been roused to some extent, it would be brought home more forcibly if collected statistics could be obtained, setting forth the cost to the nation, of the provision of public institutions, mental hospitals and other agencies, whose beds are filled by patients owing their illness to Venereal Disease.

Preventive medicine is fast passing beyond the purely physical and must more and more interest itself in the psychological, dealing thereby with the conduct which results in avoidable sickness and disability. It must concern itself with the early beginnings of disease and its measures must be directed to the mental and sociological aspects as well as to the physical side.

Education of the people is necessary, and to obtain this the united help of all shades of opinion is needed. Propaganda by means of lectures, cinematograph displays, and exhibits is useful, but of greater utility is the individual teaching by medical men, clergymen, health visitors, school nurses, and the like, and by the personal example of those who profess enlightenment on health subjects.

The faculties provided for diagnosis and treatment are known to all the medical practitioners in the town, and both Medical Officers are at all times willing to consult with practitioners upon their cases.

There are 11 practitioners whose names are on the approved register for the administration of Salvarsan and Salvarsan substitutes. Six doctors on this list availed themselves of the free supply, and 110 doses were supplied to them for the use of their patients.

The close co-operation with the officers of the Manchester Diocesan Association for Preventive and Rescue Work, was continued.

The Tables subjoined are the Ministry of Health's special Tables, in which are summarised the work done by the Blackburn Venereal Diseases Centres. The two Centres are dealt with separately.

Blackburn Royal Infirmary—V.D. Beds: Male 2; Females 2.

Particulars of Staff.

	Duties.	If Employed Whole or Part-time on Duties in V.D. Centre.
Medical Officers— Dr. W. Cran Duthie	In charge of male clinic.	Part-time.
Dr. E. Mackenzie ...	In charge of female clinic.	Part-time.
Resident Medical Officers	Assist at male clinics.	Part-time.
Nurses— Two	To prepare for and assist at clinics. Do irrigations, &c. and keep registers	One whole time. One at female clinic only.
Male Attendants— Two	To prepare for and assist at male clinics. Do irrigations, &c., and general porter's work in connection with clinics.	One nearly whole-time and evenings and week-ends and one at clinics only.
Dispenser— One	General dispensing duties.	Four clinics per week.
Clerk	Preparation of statistical returns and general clerical duties.	Part-time.

TABLE 54.

RETURN relating to all persons who were treated at the Treatment Centre at Blackburn and East Lancashire Royal Infirmary during the year ended the 31st December, 1925.

	Syphilis		Soft Chancre		Gonorrhœa		Conditions other than Venereal		TOTAL	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1. Number of cases which—										
(a) at the beginning of the year were under treatment or observation for	194	88	5	2	82	45	11	6	292	141
(b) had been marked off in a previous year as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report suffering from the same infection	5	9	...	...	5	11	2	...	12	20
Total—Items 1 (a) and 1 (b)...	199	97	5	2	87	56	13	6	304	161
2 (a). Number of cases dealt with at the Treatment Centre during the year for the first time	39	38	3	...	85	27	98	66	225	131
Total—Items 1 (a), 1 (b) & 2 (a)	238	135	8	2	172	83	111	72	529	292
2 (b) Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection	8	1	...	...	8	6	...	...	16	7
3. Number of cases which ceased to attend—										
(a) before completing the first course of treatment for	67	25	1	...	51	32	...	...	119	57
(b) after one or more courses but before completion of treatment for	46	10	...	...	...	...	...	..	46	10
(c) after completion of treatment, but before final tests as to cure of	15	5	...	2	6	4	...	...	21	11
4. Number of cases transferred to other Treatment centres after treatment for	1	...	...	...	1	...	...	...	2	...
Dead	1	4	...	...	1	1	...	...	2	5
5. Number of cases discharged after completion of treatment and observation for	9	2	1	...	20	1	103	64	133	67
6. Number of cases which, at the end of the year under report, were under treatment or observation for	99	89	6	...	93	45	8	8	206	142
Total — Items 3, 4, 5 & 6 ...	238	135	8	2	172	83	111	72	529	292
7. Out-patient attendances:										
(a) For individual attention by the Medical Officer	1295	862	148	14	2043	823	214	134	3700	1833
(b) For intermediate treatment, e.g., irrigation, dressings, etc.	33	28	...	...	6091	488	...	...	6124	516
Total Attendances	1328	890	148	14	8134	1311	214	134	9824	2349
8. Aggregate number of "In-patient" days of treatment given to persons who were suffering from	96	90	...	...	260	461	1	...	357	551

	For detection of			For
	Spirochætes	Gonococci	Other Organisms	Wasserman Reaction.
9. Examinations of Pathological material : —				
(a) Specimens which were examined at, and by the Pathologist of, the Treatment Centre	...	549	...	...
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory	...	1	...	409

Statement showing the services rendered at the Treatment Centre during the year, classified according to the areas in which the patients resided.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales) to be inserted in these headings.	Blackburn	Lancashire	Burnley	Preston	Total.
A. Number of cases from each area dealt with during the year **for the first time** and found to be suffering from :—					
Syphilis	43	34	...	...	77
Soft Chancre........................	1	2	...	...	3
Gonorrhœa	60	52	...	...	112
Conditions other than Venereal	89	74	1	...	164
Total	193	162	1	...	356
B. Total number of attendances of all patients residing in each area	8788	3377	1	7	12173
C. Aggregate number of "In-patient days" of all patients residing in each area	452	456	...	...	908
D. Number of doses of arsenobenzol compounds given in the :—					
1. Out-patient Clinic......	609	622	...	5	1236
2. In-patient Dept.........	6	6	...	...	12
to patients residing in each area					

(Signed), W. Cran Duthie, M.B., C.M.,

Ella Mackenzie, M.A., M.B.Ch.B., D.P.H.,

Medical Officers of the Treatment Centre.

TREATMENT OF MALES AT THE BLACKBURN AND EAST LANCASHIRE ROYAL INFIRMARY V.D. CLINIC.

Novarsenobillon	— Initial dose .45 grm.	Final dose .75 grm.
Silver Salvarsan	— Initial dose .15 grm.	Final dose .30 grm.
Stabilarsan	— Initial dose .45 grm.	Final dose .60 grm.
Sulfarsenol	— Initial dose .36 grm.	Final dose .60 grm.

Up to December 31st, 1924, the treatment for Syphillis and Gonorrhœa has been carried out on practically the same lines as those submitted to you in the Report for the year 1923.

The treatment adopted here since December 31st, 1924, is similar to that published in the St. Thomas Gazette in 1923 and is recommended by Col. Harrison, D.S.O., M.B. Four courses are outlined in Colonel Harrison's recommendation and these are carried out, more or less, according to the nature of the case, as follows :—

The various courses may conveniently be divided into four classes, A, B, C, and D, and the dosage indicated is that for adult males of average weight. In Course A, from the 58th to the 77th day potassium iodide is given in doses of 5 gr. thrice daily the first week; 7 gr. the second week; and 10gr. the third week, generally in combination with nux vomica. A blood test is taken on the 92nd day.

Course "A."

Day.	"914" grm.	or S.S. grm.	or Stab. grm.	or Sulf. grm.	and Hg. Gr.	or Bi. grm.
1	0.45	0.15	0.45	0.36	—	—
8	0.45	0.15	0.45	0.48	i	0.3
15	0.45	0.15	0.45	0.54	i	0.3
29	0.60	0.20	0.60	0.60	i	0.3
36	0.60	0.20	0.60	0.60	i	0.3
50	0.75	0.25	0.60	0.60	i	0.3
57	0.75	0.25	0.60	0.60	i	0.3
78	0.75	0.30	0.60	0.60	i	0.3
85	0.75	0.30	0.60	0.60	i	0.3
92	0.75	0.30	0.60	0.60	i	0.3

Course "B."

The same as Course "A," but omitting the last three injections from the 78th to the 92nd day.

Course "C."

Day.	"914" grm.	or	S.S. grm.	or	Stab. grm.	or	Sulf. grm.	and	Hg. Gr.	or	Bi. grm.
1	0.60		0.20		0.45		0.54		i		0.3
8	0.60		0.20		0.60		0.60		i		0.3
15	0.60		0.20		0.60		0.60		i		0.3
29	0.75		0.30		0.60		0.60		i		0.3
36	0.75		0.30		0.60		0.60		i		0.3

Course " D."

Day.	S.S. grm.	or	Stab. grm.	or	Sulf. grm.	and	Hg. Gr.	or	Bi. grm.
1	0.15		0.30		0.36		—		0.2
4	0.15		0.30		0.36		i		0.2
8	0.15		0.30		0.36		—		0.2
11	0.15		0.30		0.36		i		0.2
15	0.20		0.45		0.48		—		0.2
18	0.20		0.45		0.48		i		0.2
22	0.20		0.45		0.48		—		0.2
25	0.20		—		—		i		0.2
29	0.20		0.60		0.60		—		0.2
32	0.25		—		—		i		0.2
36	0.25		0.60		0.60		—		0.2
39	0.25		—		—		i		0.2
43	0.25		0.60		0.60		—		0.2

(I.)—Primary Cases with Negative Serum Recation at Time of First Injection and One Week after this.

(*a*) Course " A."

(*b*) No treatment for five weeks.

(*c*) Potassium Iodide for three weeks (gr. 15 a day for the first week, gr. 21 a day for the second, and gr. 30 for the third).

(*d*) Course " A."

(*e*) Suspend all treatment, but test the blood serum every three months during the first year after stopping treatment, and every six months during the second year respectively being preceded by a provocative injection of an arsenobenzol compound, such as 0.45 grm. " 914 " or Stabilarsan. It has not yet been found practicable to test the cerebro-spinal fluid periodically, as this may interfere with the patient's work.

(II.)—PRIMARY CASES WITH A POSITIVE RECATION AT TIME OF FIRST INJECTION OR ONE WEEK LATER.

(*a*) As indicated in I. (*a*) to (*d*).
(*b*) No treatment for ten weeks.
(*c*) Potassium Iodide for three weeks.
(*d*) Course "C."
(*e*) Suspend treatment and observe patient as indicated in I. (*e*) above.

(III.)—CASES WITH CLINICAL SIGNS OF SECONDARY SYPHILLIS.

(*a*) As shown in II. (*a*) to (*d*).
(*b*) No treatment for ten weeks.
(*c*) Potassium Iodide for three weeks.
(*d*) Course "C."
(*e*) Suspend treatment and observe patient as indicated in I. (*e*).

(IV.)—CASES WHICH ARE LATER THAN SECONDARY.

(*a*) Course "B."
(*b*) Three weeks' potassium iodide.
(*c*) No treatment for ten weeks.
(*d*) Course "C."
(*e*) Three weeks' potassium iodide.
(*f*) Repeat (*c*) to (*e*) twice.
(*g*) No treatment for sixteen weeks.
(*h*) Course "C."
(*i*) Three weeks' potassium iodide.
(*k*) No treatment for eighteen weeks.
(*l*) Course "C."

(V.)—SYPHILLIS OF THE NERVOUS SYSTEM.

(*a*) Course "D," preferably employing Bismuth.
(*b*) Three weeks' potassium iodide.
(*c*) No treatment for three weeks.
(*d*) Repeat (*a*) and (*b*).
(*e*) No treatment for eight weeks.
(*f*) Repeat (*a*) and (*b*).
(*g*) No treatment for twelve weeks.
(*h*) Repeat (*a*) and(*b*).
(*i*) No treatment for fourteen weeks.
(*k*) Repeat (*a*) and (*b*).

The above treatment is controlled by periodical examinations of the cerebro-spinal fluid, and may be continued on the same lines for a number of years.

SECONDARY SYPHILIS.

per oram :—Pil. Hydrarg. or Pil. Hyd c Creta grl.
Liq. Hyd. Perchlor alone or combined with potassium iodide.

Gargles or Mouth Washes :—Aluminium Acetate.
Hydrogen Peroxide.
Sol. Phenate of Soda.
Pot. Chlor. with astringents.

TESTS MADE BEFORE DISCHARGE OF PATIENTS.

Wasserman, Smears, Bougies, Alcoholic Stimulation, Silver Nitrate injections, Detoxicated Gonococcal Vaccines, Prostatic Massage for Smears, and Urethroscopic examinations. As regards Gonorrhœa, Culture Tests and complement fixation tests have not been made.

At the end of one year after suspension of treatment, a Provocative Injection of 0.45 grm. of N.A.B. is given. A Blood test is made and treatment resumed if necessary.

A similar test is made at the end of the second year.

If the Blood Test is negative the Cerebro-spinal Fluid is finally tested and if that too is negative the patient is discharged.

In cases of Primary Injection with negative reaction a period of two years' observation from commencement of treatment is made. If the Wasserman Reaction and Cerebro-spinal Fluid is negative at the end of that period the patient is discharged.

W. CRAN DUTHIE, M.B., C.M.,
Medical Officer in Charge of Male Clinic.

TREATMENT GIVEN AT THE BLACKBURN & EAST LANCASHIRE ROYAL INFIRMARY FEMALE V.D. CLINIC.

Adults :—Novarsenobillon 0.3 gm. to 0.6 gm.
Sulfarsenol 0.18 gm. to 0.48 gm.
Infants :—Sulfarsenol 0.015 gm. to 0.12 gm.

Infants :—One or more courses, each of 18 to 24 intramuscular injections of Sulfarsenol and Hyd. c Creta Gr. ¼ t.i.d.

PRIMARY SYPHILIS.

Two or more courses, each of ten intravenous injections of N.A.B. and Pil Hydrarg. gr. 1 t.i.d. Mist Pot. Iod. c Hydrarg during rest periods.

SECONDARY SYPHILIS.

Three or more courses, each of ten intravenous injections of N.A.B. and Pil Hydrarg gr. 1 t.i.d. till blood is negative to the Wasserman Reaction and all physical signs of the disease have disappeared. When blood is negative after a period of rest, a further course of ten or more injections is given. Mist Pot. Iod. c Hydrarg. during all rest periods.

SYPHILIS.

Infants :—After two years' freedom from all signs and symptoms of the disease.

Adults :—*Primary.*—If the Wasserman Reaction is negative at the start the patient is discharged after two years' observation without symptoms or signs of the disease during that time. Blood tested at three monthly intervals.

Secondary.—If the Wasserman reaction is positive at the start the patient is discharged after two years' freedom from all signs of the disease either clinically or serologically after suspension of all medical treatment, in spite of provocative injections of N.A.B. Blood tested at three-monthly intervals.

GONORRHŒA.

Patients are discharged after all signs and symptoms of the disease have disappeared and three consecutive negative smears from the Urethra and Cervix have been taken after a menstrual period and a provocative vaccine.

E. MACKENZIE,
Medical Officer in Charge of the Female Clinic.

TABLE 55.

RETURN relating to all persons who were treated at the Treatment Centre at Blackburn Town Hall during the year ended the 31st December, 1925.

	Syphilis		Soft Chancre		Gonorrhœa		Conditions other than Veneral		TOTAL	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Number of cases which—										
(a) at the beginning of the year under report were under treatment or observation for	22	47	...	...	...	19	...	9	22	75
(b) had been marked off in a previous year as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report suffering from the same infection	...	...	...	...	...	...	...	...	...	...
Total—Items 1 (a) and 1 (b)	22	47	...	...	...	19	...	9	22	75
2. (a) Number of cases dealt with at the Treatment Centre during the year for the first time	11	20	...	...	2	35	4	61	17	116
Total—Items 1 (a), 1 (b) & 2 (a)	33	67	...	...	2	54	4	70	39	191
2. (b) Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection	...	...	...	...	...	4	...	...	...	4
3. Number of cases which ceased to attend—										
(a) before completing the first course of treatment for	3	14	...	...	...	10	...	...	3	24
(b) after one or more courses but before completion of treatment for..........................	...	7	...	...	...	...	...	...	...	7
(c) after completion of treatment, but before final tests as to cure of	...	2	...	...	...	...	...	...	...	2
4. Number of cases transferred to other Treatment Centres after treatment for.......................	...	1	...	...	...	7	...	...	...	8
5. Number of cases discharged after completion of treatment and observation for.......................	10	15	...	...	2	1	...	...	12	16
Dead	2	2	...	...	...	1	...	...	2	3
6. Number of cases which, at the end of the year under report, were under treatment or observation for	18	26	...	...	...	35	2	10	20	71
Total—Items 3, 4, 5 and 6...	33	67	..	...	2	54	2	10	37	131
7. Out-patient attendances—										
(a) For individual attention by the Medical Officer	204	342	...	...	2	418	41	287	247	1047
(b) For intermediate treatment, e.g., irrigation, dressings, etc.	...	...	...	...	...	...	...	...	...	...
Total Attendances	204	342	...	...	2	418	41	287	247	1047
8. Aggregate number of "In-patient days" of treatment given to persons who were suffering from	...	...	...	...	...	...	...	...	...	...

	For detection of			For Wasserman Reaction
	Spirochetes	Gonococci	Other Organisms	
9. Examination of Pathological material—				
(a) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre	...	...	...	...
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory	...	96	...	71

Statement showing the services rendered at the Treatment Centre during the year, classified according to the areas in which the patients resided.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales) to be inserted in these headings.	Blackburn	Darwen	Chorley	Clitheroe	Langho	Total
A. Number of persons from each area dealt with during the year **for the first time** and found to be suffering from :—						
Syphilis	31	...	...	...	...	31
Soft Chancre	...	...	...	...	...	...
Gonorrhœa	36	...	1	...	...	37
Conditions other than Venereal	63	1	...	1	...	65
Total	130	1	1	1	...	133
B. Total number of attendances of all patients residing in each area	1235	52	2	3	2	1294
C. Aggregate number of "In-patient days" of all patients residing in each area	...	...	...	...	...	...
D. Number of doses of arsenobenzol compounds given in the :— 1. Out-patient Clinic 2. In-patient Dept. to patients residing in each area	491	12	...	1	...	504

E. Give the names of arsenobenzol compounds used in the treatment of Syphilis and the usual initial and final doses.	N.A.B. ·3 Grms. — ·6 Grms. Sulfarsenol 1½ Ct. Grms. — 48 Ct. Grms.
F. State the amount and kind of treatment usually administered to a case of Syphilis of each of types usually dealt with at the Treatment Centre.	ADULTS. Primary Syphilis: Two or more courses of 10 intravenous injections of N.A.B. + Pil. Hydrarg. Grst. T.i.d. Secondary Syphilis: Three or more courses of 10 intravenous injections of N.A.B. + Pil. Hydrarg. Grst, T.i.d. INFANTS. One or more courses, each of 18 subcutaneous injections of Sulfarsenol + Hyd. ē Cret. Grs. ¼ T.i.d.
G. State the nature of tests applied in deciding as to discharge of patients referred to in Item 5 on previous page.	SYPHILIS. Adults: 1. When blood negative at start patient discharged if blood negative to W.R. for 2 years, without return of symptoms. 2. When blood positive at start patient discharged after 2 years freedom from all signs of disease either clincal or serological, after suspension of treatment. Infants: Discharged after 2 years freedom from all clinical signs of the disease after suspension of all medical treatment. GONORRHŒA. A patient is discharged when all clinical signs have disappeared and 3 successive negative cervical and urethral smears have been obtained after a menstrual period and the giving of a provocative vaccine.

(Signed)

ELLA MACKENZIE,
Medical Officer of Treatment Centre.

NOTIFICATION OF BIRTHS ACT, 1915.

This Act requires that all Births should be notified to the Medical Officer of Health within thirty-six hours of their occurrence.

Notifications received from :—

	Births.	*Stillbirths,*
Doctors	143	17
Midwives	1591	54
Parents and Others	208	11

To keep a check upon the notifications, the returns of the Registrars of Births are compared with the notification lists, and a letter is sent to the parents of any child whose birth has not been notified. 129 letters were despatched during 1925.

The percentage of Births notified by midwives was 81.9%, as compared with 82% in 1924.

ANTE-NATAL SUPERVISION.

The Ante-Natal Clinic initiated in 1921 and conducted by the lady Assistant Medical Officer, has been continued. It was found necessary in July to add another session per week in order to cope with the increasing numbers. Two sessions are now held weekly. Four hundred and twenty-six prospective mothers made 1,283 attendances; an increase of 133 and 583 respectively.

The following Table gives full details :—

TABLE 56.

Number of Sessions held	74
Numbers of Attendances made	1283
Number of individuals who attended and were examined	426
Number of normal labours resulting	246
Number of abnormal labours resulting	45
Number of Women found to be not pregnant	59
Number of Women whose confinement had not yet supervened at the end of 1925	76
Women sent by Health Visitors and from Centres	117
Women sent by the Matron of Springfield Maternity Home	117
Women sent by Doctors	36
Women sent by Midwives	32
Women who came on their own initiative	36

Women sent by another Patient	24
Women sent by the Matron of the District Nurses' Association	2
Women sent by Matron of the Viewfield Hostel	1
Women sent by the Relieving Officer	1

Of the patients examined, 172 were primigravidæ, and 195 multigravidæ, whilst of those undelivered on December 31st, 1925, 29 were primigravidæ and 27 multigravidæ.

The 45 abnormal labours were as follows :—

Instrumental	15	Abortions	3
Still Births	15	Ante-partum Hæmorrhage	1
Cæsarian Section	8	Eclampsia and Death of Mother	1
Malpresentations	5		

One of the malpresentation labours, and the labours complicated with Ante-partum hæmorrhage, and Eclampsia, resulted in Still Births.

Analysis of the above details, shows a Still-Birth rate of 5.2% ; a maternal mortality of 3.4 per 1,000 births. For the whole population the corresponding rates were : Still Births, 3.9%, and Maternal Mortality, 5.7 per 1,000.

Of the 426 patients who attended, 234 (55%) were sent by some branch of the Department; 8.4% were sent by Doctors, and 7.5% by Midwives; 8.4% of the women came on their own initiative, whilst 5.6% were advised to come by other patients who had attended. It is apparent from this that the mothers themselves have a greater realisation of the benefits of skilled ante-natal supervision than have the midwives. This is not a complimentary reflection upon the standard of midwifery practice. When it is remembered that 74% of the confinements were attended by midwives and they usually see the patient before anyone else, it must be admitted that the number of patients sent by midwives to the Ante-Natal Clinic is frankly disappointing. The need for Ante-Natal supervision is stressed *ad nauseum* by all competent authorities, but the message does not yet seem to have reached all those who make a practice of the art of midwifery. In 1924 5.5% of the cases attending the Clinic were sent by midwives : there is therefore an improvement of 2.2% in 1925. The number and percentage of patients sent by another patient has much increased. This is a gratifying feature.

The following is of purely medical interest and gives the Complications found by the examining medical officer. I am indebted to Dr. E. Mackenzie for the details in this and the previous Table.

TABLE 57.

	Primagravidæ	Multigravidæ	Non-Pregnant	Total
Contracted Pelvis	18	22	...	40
Albuminuria...	42	52	2	96
Glycosuria	6	2	...	8
Hyperemesis Gravidarum	7	6	...	13
Varicose Veins	45	80	...	125
Hæmorrhoids	2	1	...	3
Cardiac Disease	10	11	...	21
Anæmia	2	2	2	6
Hæmorrhage during Pregnancy	3	5	...	8
Threatened Abortion	1	1	...	2
Inevitable Abortion	...	1	...	1
Placenta Prævia	1	1	...	2
Venereal Disease	9	13	8	30
Vaginal Discharge (not Venereal)	5	13	...	18
Uterine Displacement	...	2	14	16
Malpresentation	...	3	...	3
Dead Foetus	1	1	...	2
Bronchitis	4	1	...	5
Pulmonary Tuberculosis	...	1	2	3
Cystitis	1	...	...	1
No complications found	51	36	5	92
Torn Perineum	...	...	5	5
Cystocœle	...	...	1	1
Endometritis	...	...	6	6
Ileo-stasis	...	...	5	5
Phlebitis	...	...	1	1
Sterility	...	...	4	4
Retention of Urine	...	...	1	1
Femoral Hernia	...	...	1	1
Subinvolution of Uterus	...	...	1	1
Cervical Erosion	...	...	2	2
Multiple Myomata	...	...	1	1
Cervical Polypus	...	...	1	1
Menopause	...	...	1	1

The above Table shows that out of a total of 426 pregnant and non-pregnant women who attended the Ante-Natal Clinic, 334 or 78.4% showed some abnormality. Of the abnormalities found the most usual were: Varicose Veins, 29.3%; Albuminuria, 22.7%; Contracted Pelvis, 9.4%; and Venereal Disease, 7.0%. All these complications may become serious and a danger to the mother's life, whilst in addition the infant's life may be imperilled in cases of Contracted Pelvis, Albuminuria, and Venereal Disease. If proof were needed for the exercise of Ante-Natal care, what could be more satisfying?

MATERNAL MORTALITY.

There were 11 deaths intimately associated with pregnancy, as compared with 10 in 1924.The maternal mortality rate for 1925 was consequently 5.7 per 1,000 births, compared with 5.0 per 1,000 in 1924. In other words one mother died for every 173 living babies born.

The figures are, perhaps, not quite comparable with those for 1924, as my predecssor did not include heart disease or other condition in which there was a pre-existing pathogenesis. However, it seems reasonable to consider that the strain of child-bearing brought about the final breakdown, which would not have occurred in all probability if this superadded emergency had not to have been met. Consequently, the labour of child-bearing was immediately responsible for death, and should be stated to be the cause of death. Naturally, including these cases makes the rate higher, but I feel it is a truer picture of the toll of childbirth.

Table 58 gives full details for all years since 1910.

TABLE 58.

Year	Births	Preventable Causes						Possibly Prevent'ble Causes		Not Preventable Causes						Influenza	Total	Maternal Mortality	Infant Mortality
		Puerperal Fever and Sepsis	Hæmorrhage P.P.H.	Cæsarian Section	Shock	Exhaustion	Ruptured Uterus	Eclampsia	Contracted Pelvis	Placenta Prævia	Pulmonary or other Embolism	Heart Disease	Syncope	Acute Nephritis	Asthma & Pulmonary Disease				
1911	2857	8	...	...	...	1	...	4	...	3	2	1	1	1	...	...	21	7·3	186
1912	2737	5	...	...	...	1	...	3	...	1	...	1	...	1	...	...	12	4·3	119
1913	2915	3	2	...		2	1	3	...	1	...	1	...	...	1	2	16	5·4	147
1914	2805	7	1	...	2	1	...	2	2	1	...	1	..	...	1	...	18	6·4	116
1915	2452	3	1	...	...	...	...	2	...	1	...	...	...	1	...	...	8	3·2	145
1916	2065	4	...	...	1	...	...	1	1	...	1	...	...	...	...	...	8	3·8	121
1917	1626	2	1	...	...	2	...	3	1	...	1	...	...	...	...	...	10	6·1	110
1918	1552	3	...	...	...	...	...	2	1	2	...	...	...	...	3	...	11	7·0	125
1919	1838	5	3	...	...	1	...	2	...	...	...	..	...	...	...	...	11	6·0	94
1920	2827	3	3	...	.	1	1	3	1	3	...	1	...	...	...	...	16	5·7	110
1921	2528	7	. .	...	...	...	...	2	...	...	2	...	...	...	...	...	11	4·3	109
1922	2177	5	1	...	2	...	...	...	2	2	1	...	1	..	1	...	15	6·8	98
1923	2094	9	1	...		...	...	...	...	1	1	...	...	1	1	..	14	6·7	100
1924	1980	3	2	1	...	...	...	..	...	2	...	1	...	1	...	...	10	5·0	84
1925	1902	5	...	...	...	...	1	2	...	1	...	2	...	...	...	...	11	5·7	97
Tot'ls	34355	72	15	1	5	9	3	29	8	18	8	8	2	5	7	2	192	5·5	117

It is seen that the causes of death are grouped under three main headings: Preventable, Possibly Preventable, and Not Preventable. In 1925, deaths from the classified Preventable causes numbered 54.5% of the total deaths. From Possibly Preventable causes 18.2%, and from Not Preventable causes 27.3%.

For the whole series of years included, the deaths classified in the same manner were: Preventable causes, 54.6%; Possibly Preventable, 19.3%; and Not Preventable, 26.1%.

Puerperal Fever and other sepsis accounted for five out of the 11 maternal deaths during 1925. Since 1911 these causes have brought about 72 deaths out of a total of 192 (37.5%), and they rank easily as the "Captains of the men of Death" in regard to maternal mortality. Eclampsia is next in importance with a total of 29 deaths—2 in 1925—or 15.1%.

Puerperal Sepsis. I have headed this section in this manner, though Puerperal Sepsis is not notifiable under that name. The uncertain term, Puerperal Fever, is the one used for notification purposes. It cannot, unhappily, be doubted that the notification of Puerperal Fever has degenerated into something akin to a farce. It has broken down for several reasons. Firstly, because no satisfactory definition of the term has yet been evolved; secondly, because there is insufficient hospital accommodation for the proper treatment and nursing of these cases; and thirdly, because, for some reason or other, there is a feeling of opprobrium connected with the public acknowledgment of the occurrence of a case.

The provision of Hospital observation wards would be of great utility inasmuch as a practical study and systematic survey could be made of these puzzling cases.

Thirteen cases of Puerperal Fever were notified. This is a rate of 6.6 per 1,000 births. For the past five years the rates have been: 1921, 5.9; 1922, 3.2; 1923, 5.7; 1924, 5.0.

Of the 13 cases, 2 were attended by a doctor alone at their confinement and were treated at home; both died. Two were attended by midwives alone at their confinement, one of these was treated at home and recovered: the other was at first treated at home but later was removed to hospital; she died. Four were attended by both doctors and midwives at confinement: three of these were nursed at home and recovered, the fourth was later removed to hospital and died. One case whose confinement took place in hospital recovered. Four cases were ultimately considered not to come within the meaning of the term Puerperal Fever.

In order to obtain some information as to the accommodation usually available for confinements in private houses, I have collected figures from details furnished by the Health Visitors. The six Districts mentioned are the same as those given in the section on The Work of the Health Visitors (page 142).

TABLE 59.

Percentages of Births.

Accommodation Provided	Districts						Total Births	Total %
	I.	II.	III.	IV.	V.	VI.		
PRIVATE HOUSES—								
Bedroom	29·13	40·57	38·80	24·22	37·46	43·65	728	36·9
Kitchen or Living Room ...	30·45	30·28	32·70	49·70	17·82	32·48	604	30 8
Sitting Room	18·00	14·28	15·90	12·42	18·12	9·13	294	14·9
INSTITUTIONS—								
Municipal Maternity Home ...	12·93	10·57	6·85	7·48	18·12	8·12	214	10·8
Union Infirmary	3·23	1·42	2·20	4·30	1·51	4·06	53	2·7
Royal Infirmary	...	1·14	1·60	1·20	1·20	0·05	18	0·9
OTHER PLACES—								
Midwife's House	5·12	1·71	1·10	0·62	5·44	1·27	53	2·7
Others	*1·07	...	0·82	...	0·30	...	8	0·4
Total Births including Still Births ...							1972	

*One birth occurred in a caravan.

The above Table indicates that 1,626 births (82.4%) occurred in the parents' dwelling house; 285 in institutions, and 61 in other places. Of the confinements in private houses, 37.1% took place in the kitchen or living-room.

The lack of privacy incidental to, and the general unsuitableness of, the living-room as a place for a confinement hardly needs emphasising. Although the Springfield Municipal Maternity Home was utilised more fully than at any period of its career, yet it was not fully so. It is hoped that more and more mothers will avail themselves of the undoubted advantages it possesses. The relief from home worries during a critical period, the skilled nursing, and the privacy are conditions which should weigh heavily in determining a mother's mind. Unfortunately, some women will not, or cannot, leave the other children, as they can obtain nobody to look after them in their absence. If some system of "Home Helps" could be devised in conjunction with the Maternity Home I believe greater use would be made of the Home than is at present possible.

SPRINGFIELD MUNICIPAL MATERNITY HOME.

Except for a period of 14 days, during which the Home was closed for a thorough cleansing throughout and for painting work, the Home had been in operation throughout the year. A total of 251 patients were admitted, being 59 more than in 1924.

The Home has been conducted on the same lines as heretofore, except that now the lady Assistant Medical Officer visits each day and is responsible for the treatment of all patients who have not engaged their own medical attendant. More detailed clinical investigation is also carried out : but, as this was only begun towards the latter part of the year, statistics are not available for the period under review.

TABLE 60.

Statistical Report for 1925.

1. Total No. of Cases Admitted	251
2. Average Duration of Stay	15 days
3. (*a*) No. of cases delivered by Doctors	36
(*b*) No. of cases delivered by Midwives	215
4. No. of cases in which Medical assistance was sought by the Midwife with reasons for requiring assistance :—	
(*a*) Ante-Natal—	
4 Albuminuria,	
(*b*) During Labour—	
13 Forceps deliveries,	
(*c*) After Labour—	
25 Ruptured Perineum.	
1 Puerperal Mania,	
3 Rise of Temperature,	
1 Mastitis	47
(*d*) For Infant—	
2 Dangerous feebleness,	
1 Phimosis,	
1 Inflammation of the Eyes	4
5. No. of Cases notified as Puerperal Sepsis with result of Treatment in each case	Nil
6. No. of cases in which Temperature rose above 100.4°F. for 24 hours, with rise of pulse rate	6
7. No. of cases notified as Ophthalmia Neonatorum	Nil
(One case was notified after leaving the Home).	
8. No. of cases of " Inflammation of the Eyes " however slight..	5

9. No. of Infants not entirely breast fed while in the Institution (with reasons why they were not breast fed) 7

(i). Mother's condition unfit, 3.
(ii) Supply insufficient, 4.

10. No. of Maternal Deaths with causes (1 Eclampsia) 1

11. No. of Fœtal Deaths (still born or within 10 days of birth) and their causes—and the results of the post-mortem examination if obtainable 9

(i.) Impacted Breech, 1.
(ii.) Specific Disease, 1.
(iii.) Albuminuria, 3.
(iv.) No ascertainable cause, 4.

One baby died within 3 days of birth. This baby was a freak.

12. Total number of Cases (Mothers or Infants) for which a private medical man was in attendance 66

STILL BIRTHS.

During 1925, 74 Still Births were notified, giving a proportion of one still-born child to 25.7 living children. There were 15 fewer Still Births than in 1924. The Still Birth rate is 3.9% registered live births. For past years the rates have been :—1921, 5.2; 1922, 4.6; 1923, 4.9; 1924, 4.5.

Notification of Still Birth is not compulsory, but the figures given are probably accurate, as the staff of the Maternity and Child Welfare Department obtain information about Still Births during their routine visiting.

The following Tables give fuller details of these Still Births.

TABLE 61.

STILL BIRTHS, 1925.

45	Notified by Midwives.
9	,, Doctors.
20	,, Institutions—Total 74.
30	Attended by Midwives alone.
6	,, Doctors alone.
18	,, Midwives and Doctors.
20	,, Institutions.
43	occurred at 9 months.
10	,, 8 months.
18	,, 7 months.
3	term not known.

CERTIFIED CAUSES OF STILL BIRTHS.

19	Malpresentation.
12	Albuminuria.
3	Ante-partum Hæmorrhage.
2	Difficult Labour—Instrumental Delivery.
12	Ill-health of Mother.
1	Malformation of Fœtus.
2	Fall.
23	Not known.

OPHTHALMIA NEONATORUM.

Twenty-five cases of Ophthalmia Neonatorum were notified during the year.

The following Table gives the Notifications in Blackburn during the past eight years.

	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.
Number of Cases	15	18	22	23	19	15	15	25
Rate per 1,000 Births..	9.6	9.7	7.7	9.1	8.7	7.2	7.6	13.2

Of the cases notified, 21 were notified by Doctors, 3 by Midwives, and 1 was notified from an institution.

TABLE 62.

Results of Treatment.

Cases Treated			Vision Unimpaired	Vision Impaired	Total Blindness	Deaths
Notified	At Home	In Hospital				
25	24	1	23*	Nil	Nil	Nil

*Two cases were under treatment at the end of the year. One death occurred in a baby who had suffered from Ophthalmia, but this was not the cause of death, and the eyes were quite normal at the time of decease.

Fifteen of the cases treated at home were attended by District Nurses.

Formerly, perhaps the commonest cause of blindness occurring in infancy, Ophthalmia Neonatorum, has not been the cause of a single case of blindness in Blackburn during the last four years. This excellent result is due to the use by midwives of antiseptic eye drops, soon after birth and by the more prompt summoning of medical aid.

TABLE 63.—**Maternity and Child Welfare.**—Deaths of Infants under One Year of Age.

Month	1925					1924			1920		
	Births	Deaths	Mortality per 1000 Births	General Birth Rate	General Death Rate	Mortality per 1000 Births	General Birth Rate	General Death Rate	Mortality per 1000 Births	General Birth Rate	General Death Rate
January	155	182	154	14·3	16·8	105	15·4	15·6	80	24·0	10·2
February	146	168	130	14·9	17·2	109	15·1	13·6	88	22·1	11·0
March	184	181	103	17·0	16·7	101	14·4	25·4	169	22·6	20·0
April	165	138	78	15·7	13·2	123	17·5	22·1	194	20·7	19·8
May	166	141	78	15·4	13·0	79	15·0	13·0	193	18·0	16·7
June	160	124	125	15·3	11·9	31	15·0	10·7	102	23·8	12·0
July	177	95	40	16·4	8·8	88	16·5	10·1	61	22·6	10·0
August	166	95	30	15·4	8·8	62	14·6	8·1	62	20·2	8·3
September	152	142	85	14·4	13·6	30	15·2	14·3	67	18·1	9·7
October	116	136	138	10·8	12·5	31	14·6	8·6	96	19·1	9·9
November	150	163	120	14·4	15·6	76	14·8	13·7	95	18·2	11·0
December	165	202	115	15·3	18·7	142	15·3	15·4	125	17·4	13·5
Totals	1902	1767	97	14·9	13·9	84	15·3	14·0	110	22·1	13·9

Table 63 shows that in 1925 the Infantile Death Rate was lowest in July and August. These months were exceptionally warm and dry. As might be expected, the death-rate was highest during the six winter months, never falling below 100, and in January reaching the high figure of 154.

In 1924 a similar seasonal curve was noticeable, but the winter rise began later and ended later in the year. The 1920 curve showed its highest peak in April and May and differed considerably from the 1924 and 1925 curves.

It will also be noticed that the Infantile Mortality Rate does not rise and fall *pari passu* with the general Death Rate, though the tendency is for a high infantile mortality rate to be accompanied by a high general death rate, and conversely a low infantile mortality by a low general death rate. Influences which are deleterious to babies are also deleterious to the aged and the infirm, for the resistance of the one is much on a level with that of the other.

TABLE 64.

INFANTILE MORTALITY IN WARDS AND COMPARISON WITH DENSITY OF POPULATION.

WARD	Estimated Population middle of 1925	Persons per Acre	Rooms per person	Births	Birth Rate	Infantile Mortality	Deaths	Death Rate	Natural Increase or Decrease of Population 1924-5	Census Population 1926 (March)	Increase or Decrease over estimated Population
	1	2	3	4	5	6	7	8	9	10	11
ST. STEPHEN'S	11044	9·5	1·08	168	15·2	65	134	12·1	—65	11212	+168
TRINITY..............	8882	59·1	1·05	118	13·3	101	126	14·2	—51	8696	—186
ST. MICHAEL'S.....	8993	14·4	1·10	112	12·4	80	107	11·9	—52	8787	—206
ST. JOHN'S	7200	74·1	1·13	97	13·4	61	94	13·0	—42	6957	—243
ST. SILAS'S............	9027	9·1	1·50	101	11·2	29	103	11·4	—53	9210	+183
ST. PAUL'S............	9791	79·5	1·12	177	18·0	107	149	15·2	—57	9715	— 76
ST. PETER'S	6732	50·5	1·05	133	19·7	105	128	19·0	— 40	6613	—119
ST. MARY'S	5536	31·8	1·02	101	18·2	188	119	21·5	—32	5474	— 62
SE. MATTHEW'S ...	9340	87·1	1·05	137	14·6	65	123	13·1	—54	9200	—140
ST. THOMAS'S	12092	7·0	1·08	142	11·7	84	165	13·6	—71	11941	—151
PARK	9499	14·6	1·08	169	17·8	118	131	13·8	—55	9467	— 32
ST. LUKE'S	7587	45·1	1·03	118	15·5	118	112	14·7	—44	7641	+ 54
ST. MARK'S	10448	25·9	1·13	139	13·3	122	122	11·6	—62	10311	—137
ST. ANDREW'S......	10729	11·6	1·07	190	17·7	110	154	14·3	—62	11273	+444
	126900	17·1	1·11	1902	14·9	97	1767	13·9	—740	126497	— 403

The above Table gives some interesting figures showing the relationship between room space, persons per acre, the birth-rate and infantile mortality in the various wards of the town. It also reveals a disquieting fact in the steady diminution which has taken place in the population. Column 9 shows the Natural increase or decrease calculated upon the basis of the Registrar-General's figures for 1925 and 1924. In every ward a decrease is noted, greatest in St. Thomas's.

The local Census taken in March, 1926, shows decreases in all wards with the exception of St. Stephen's, St. Silas's, St. Luke's, and St. Andrew's. A marked increase is shown in the last-named ward and is accounted for by migration of population from the centre of the town to the outskirts, and also by the occupation of new houses. Wards showing the greatest decreases are St. John's, St. Michael's, and Trinity.

Infantile Mortality is highest in St. Mary's, where it reaches the large rate of 188 per 1,000 births. Next comes St. Mark's with 122. As against these high rates may be contrasted St. Silas's with 29 per 1,000, and St. John's with 61 per 1,000. The disparity between St. Mary's Ward and St. Silas's is very great and is a constant feature. The differences in general health amenities, and housing, is apparent to anyone knowing the town, and serves—if there be any longer need—to show the influence which environment has upon infant life. The apparent tendency for more and more of the population to move to the outskirts, whilst the centre of the town becomes devoted to purely industrial and commercial interests, is one to be fostered. In any movement such as this thought must be taken of the future, otherwise it may be found that slums have merely changed their position.

Table 65 illustrates the above remarks over a period of ten years. In 1915 the first great enactment relating to Child Welfare was passed and 1916 is the first year, throughout which, its provisions were in operation. St. Silas's Ward shows the greatest relative reduction in infant mortality during this period; St. Thomas's, St. Peter's, St. Mary's and Trinity the least.

TABLE 65.

Infantile Mortality in Wards from 1916 to 1925.

WARD.	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	Average for 10 years
St. Stephen's	83	86	145	116	136	92	67	56	68	65	91
Trinity ...	119	102	121	118	117	130	129	163	60	101	116
St. Michael's	98	93	113	53	106	83	78	105	99	80	90
St. John's	141	103	133	129	111	140	76	75	101	61	107
St. Silas ...	98	73	100	51	53	59	69	50	44	29	62
St. Paul's	110	135	146	90	124	134	133	130	76	107	118
St. Peter's	96	180	147	68	197	114	170	91	149	105	131
St. Mary's	157	127	213	131	138	98	138	128	99	188	141
St. Matthew's	72	111	118	75	100	127	111	90	120	65	98
St. Thomas's	88	112	75	88	90	106	71	130	76	84	92
Park	212	142	157	101	125	108	69	110	86	118	122
St. Luke's	147	101	122	117	99	99	116	74	90	118	108
St. Mark's	175	111	97	95	73	129	106	85	60	122	105
St. Andrew's	124	84	91	75	81	87	72	81	73	110	87
Borough	121	110	125	94	110	109	98	100	84	97	104

TABLE 66.—Deaths under one year, arranged according to Days, Weeks and Months.

CAUSES OF DEATH.	1st day.	2nd day.	3rd day.	4th day.	5th day.	6th day.	7th day.	1st week.	2nd Week	3rd week.	4th week.	Under 1 month.	1 month to 2.	2 months to 3.	3 months to 4.	4 months to 5.	5 months to 6.	6 months to 7.	7 months to 8.	8 months to 9.	9 months to 10.	10 months to 11	11 months to 12.	TOTAL.
All causes Certified	24	7	10	4	3	1	2	51	11	7	3	72	21	17	13	5	6	13	8	9	7	8	7	186
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	1	...	1	...	2	4	8
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	.	1	...	2	...	...	4
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (*not Tuberculous*)	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	1	...	...	...	4
Convulsions	...	1	2	...	1	...	1	5	...	1	...	6	2	...	1	...	...	...	1	...	...	...	...	10
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	...	...	...	...	...	1	2	3	2	2	2	2	2	2	2	2	1	3	...	23
Pneumonia (all forms)		...	...	...	...	...	...	...	1	...	...	1	2	3	2	2	1	4	3	3	2	...	2	25
Diarrhœa	...	1	...	...	1	...	...	2	...	1	...	3	1	2	1	...	...	2	...	...	...	...	...	9
Enteritis	...	...	...	...	1	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Gastritis	...	...		...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	2
Syphilis	...	...	1	...	...	...	...	1	...	...	...	1	2	...	1	...	...	1	...	...	...	...	...	5
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...	...		...	...	...	...	...	...
Injury at birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Congenital Malformations	2	1	2	...	...	...	...	5	1		...	6	2	1	1	...	...	...	...	...	1	...	...	11
Premature birth	18	4	2	2	...	1	...	27	5	1	1	34	4	1	...	...	...	...	...	...	...	...	...	39
Atrophy, Debility & Marasmus	3	...	2	...	...	...	1	6	3	3	...	12	3	2	...	...	...	...	...	...	...	...	...	17
Other causes	...	...	1	2	...	...	...	3	1	...	...	4	2	4	4	1	1	2	1	2	1	3	1	26
TOTAL	24	7	10	4	3	1	2	51	11	7	3	72	21	17	13	5	6	13	8	9	7	8	7	186

Nett Births registered during the calendar year	legitimate	1832
	illegitimate	70
Nett Deaths registered during the calendar year of	legitimate infants	178
	illegitimate infants	8

ANALYSIS OF THE CAUSES OF INFANT DEATHS IN BLACKBURN.

For the past five years the numbers were: 1921, 276; 1922, 215; 1923, 210; 1924, 167; and 1925, 186.

A total of 186 infants out of 1,902 born died within 1 year of birth. Table 66 shows that 72 died within a month of birth. The death-rate during this period is known as the Neo-Natal Mortality. For 1925 the Neo-Natal Mortality was 37.8 per 1,000 live births. For past years the figures are:—

1920	54.8.	1923	47.2.
1921	49.8.	1924	30.0.
1922	39.9.		

The average Infantile Mortality rate for the decennium 1914-1923 was 113; and for 1904-13, 151.

Among the 186 deaths, 107 occurred in boy babies and 79 in girls. 981 born were males, and 921 females. The Infantile Mortality for the two sexes was, therefore: Boys, 109; Girls, 85.

The rate of Infantile Mortality amongst illegitimate infants was 114 per 1,000 births.

The rate of Infantile Mortality for England and Wales in 1925, was 75 per 1,000 births, and for the 105 large towns, 79. The rate for Blackburn is consequently higher than the average rate.

An analysis of Table 66 shows that 37.8% of the deaths occurred before the end of the first month of life, and of these, 22.6% were males and 16.1% females; 27.4% died before the end of the first week. The percentages occurring during the several periods are:— First week, 27.4%; second week, 5.9%; third week, 3.7%; fourth week, 1.5%; 1—3 months, 20.4%; 3—6 months, 12.9%; 6—9 months, 16.1%; 9—12 months, 11.9%.

From these figures it may be reasonably inferred that at least 27.4% of the infant deaths were due to uncontrollable causes except in so far as accidents of birth were concerned. In 37.8% of the deaths conditions such as management, feeding and general care probably played quite a minor rôle.

The great causes of Infant Deaths in 1925 were as under stated.

TABLE 67.

Percentage Deaths per Total Infantile Deaths.

	1925	1924		1925	1924
Premature Birth	20·9	18·5	Debility and Marasmus..	9·1	12·5
Respiratory Diseases ...	25·8	23·3	Diseases of Digestion ...	6·4	10·2
Infectious Diseases including Tubercuolsis ...	9·1	4·2	Accidental & Congenital	5·9	4·8

Deaths per 1000 Births.

	1925	1924		1925	1924
Premature Birth	20·5	15·6	Debility and Marasmus	8·9	10·6
Respiratory Diseases ...	25·2	19·6	Diseases of Digestion..	6·3	8·5
Infectious Diseases including Tuberculosis ..	8·9	3·5	Accidental & Congenital	5·7	4·1

Syphilis was certified as the cause of death in only 5 cases, giving rates of 2.7% and 2.6 per 1,000 births respectively.

In infants under one month of age, Prematurity accounted for 47.2% of the deaths, and Congenital Defects for 9.7%, Debility and Marasmus for 16.6%. Takng these groups together, 73.5% of the neo-natal deaths was due to causes operating before the birth of the baby and not remediable or preventable after birth. The condition of an infant at birth depends very much upon the health of the mother, her general state of nutrition, the nature of the confinement, and her physical conformation. It is in the prevention of neo-natal mortality that Ante-Natal work exerts its greatest benefits. The need for careful medical ante-natal supervision is apparent to all who study the facts, but, unfortunately, the mothers themselves are slow to realise its importance, both in safeguarding their own life and in ensuring the birth of a healthy, well-developed child. The influence of the employment of mothers during their pregnancy is uncertain. There are no definite facts to show that a specific deleterious action is exerted, other things being equal.

A rather different group of deaths are those occurring between the first month and the end of the first year. In this group motherhood and environment play the dominant rôle. Environment makes its influence felt in the high death-rate from Respiratory Diseases and the Infectious Diseases. It is this group of ailments which causes the disparity between Infantile Mortalities in the industrial towns and those in the rural districts. Atmospheric pollution certainly is an important factor. The smoke from houses crowded together, together with that emanating from industrial processes, entering into the defenceless lungs of the newly-born child exacts a heavy penalty. Respiratory Diseases caused 38.6% of the total infant deaths between 1 month and 1 year.

No deaths from the Infectious Diseases occurred in the first month, but during the following period up to the end of the first year, 17 deaths were registered (14.9%). Diarrhœa and Enteritis have not been included in this group.

What I have, somewhat arbitrarily, called the Environmental Diseases, therefore brought about a death-rate of 53.3% of the total deaths in the age period under consideration.

The influence of good or bad motherhood is perhaps reflected in the deaths from Digestive and Nutritional disturbances. This group caused 10.4% of deaths over the 1 month to 1 year period. Doubtless a small percentage of this mortality would occur however great the care and knowledge expended, but the majority of these deaths are avoidable.

Lack of knowledge of the essential fundamentals of mothercraft; lack of care in putting into practice the knowledge possessed; incorrect knowledge and, worst of all, a certain indifference, are the reasons for the persistence of this avoidable mortality. The remedy is the same as that for any of the other mistakes made in the course of human activities —education: in the homes, by the Health Visitors and others; in the Maternity and Child Welfare Clinics; by means of popular lectures, cinematograph or otherwise, and last but not least by the everyday example of those mothers who have learnt, who believe in and who put into practice, the true culture of that young and frail plant—the human baby.

Summing up the Infantile Deaths under the headings of Preventable, Possibly Preventable, and Not Preventable, the following Table attempts to give an approximation of the relative figures.

TABLE 68.

Preventable Causes.		Possibly Preventable.		Not Preventable.	
Diarrhœa and Gastritis, &c.	12	Pneumonia	25	Premature Birth	39
Infectious Diseases	17	Some Cases of Convulsions, say	5	Congenital Defects	12
Most Cases of Wasting, say	11	Some Cases of Wasting, say	6	Various Causes, say	4
Most Cases of Bronchitis, say	20	Some Cases of Bronchitis, say	3		
Cases of Convulsions, say	5	Various Causes, say	8		
Various Causes, say	19				
	84		47		55

TABLE 69.

Death Rates under One year of age.

CAUSE OF DEATH.	Rates per 1,000 Birth .												
	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
Small-pox	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0
Chicken-pox	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0
Measles	1·7	1·7	5·3	1·9	2·4	4·5	0·0	3·5	1·1	2·7	0·9	0·5	4·2
Scarlet Fever	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0
Whooping-cough	1·3	2·1	8·5	1·4	3·0	3·8	0·5	0·0	3·5	1·8	2·3	2·0	2·1
Diphtheria and Croup	0·0	0·3	0·0	0·0	0·6	0·0	0·0	0·7	0·3	0·0	0·0	0·0	0·0
Erysipelas	0·0	0·7	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0
Tuberculous Meningitis	1·0	0·0	0·4	0·4	1·8	3·2	1·0	1·0	0·0	0·4	0·4	0·5	0·0
Abdominal Tuberculosis	4·1	1·4	2·0	1·4	1·8	2·5	0·5	0·4	1·1	0·4	0·0	0·5	0·5
Other Tuberculous Diseases	0·3	0·3	0·8	0·0	0·0	0·6	0·0	0·0	0·0	0·0	0·0	0·0	0·0
Meningitis (*not Tuberculous*).	2·4	0·7	0·4	2·4	2·4	1·9	0·0	4·2	0·7	2·3	0·9	1·0	2·1
Convulsions	13·0	9·2	9·8	8·2	12·3	5·1	4·9	4·4	8·3	4·5	4·3	5·0	5·2
Laryngitis	1·0	0·3	0·8	0·4	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0	0·0
Bronchitis	11·6	13·5	23·2	13·5	11·0	14·8	11·4	10·2	10·6	5·9	7·1	7·0	12·0
Pneumonia (all forms)	11·6	10·3	15·0	14·0	11·0	10·9	10·8	10·2	14·2	12·8	12·4	12·6	13·1
Diarrhœa	29·8	12·1	11·4	5·3	8·0	10·9	5·4	10·2	7·9	3·2	4·3	5·5	4·7
Enteritis	5·1	0·7	5·7	4·8	1·2	3·2	0·0	1·4	4·7	4·1	4·8	0·0	0·5
Gastritis	0·0	0·7	2·0	1·9	0·0	0·0	0·5	1·7	1·1	1·8	0·9	3·0	1·0
Syphilis	1·7	0·3	0·8	0·9	0·6	3·2	0·5	1·7	2·3	0·9	2·8	2·0	2·6
Rickets	0·3	0·7	1·2	0·0	0·6	0·0	1·0	0·0	1·5	0·9	0·4	0·0	0·0
Suffocation, overlying	1·0	1·7	1·2	0·0	0·6	0·0	0·5	0·7	0·0	0·4	0 4	0·0	0·0
Injury at Birth	0·3	1·7	0·8	0·0	0·6	0·0	0·5	1·4	0·3	1·3	0·4	0.0	0·0
Atelectasis	1·7	1·7	2·0	3·3	1·8	2·5	1·6	1·7	2·7	0·4	0·9	0·5	0·5
Congenital Malformations	1·0	5·0	6·1	5.8	4·3	6·4	2·7	4·2	3·9	4·5	10·5	3·5	5·7
Premature Birth	20·5	20·7	22·8	30·0	23·9	30·9	26·6	23·7	22·5	25·7	25·3	15·6	20·5
Atrophy, Debility and Marasmus	25·4	22·1	15·0	16·4	12·9	7·9	16·3	18·0	14·2	14·2	10·9	10·6	8·6
Other causes	12·3	7·4	10·6	8·2	9·2	10·3	9·2	9·9	7·1	9·6	9·5	14·1	13·6

Table 69 affords a comparison of the yearly rates per 1,000 births over the period 1913-1925, of the various causes of Infant deaths. The outstanding features are: Firstly, the persistent high rate of death from Prematurity, Pneumonia, and Bronchitis. Secondly, the remarkable reduction in the death-rate from Diarrhœa and Enteritis. Thirdly, the fluctuation in the death rate from Measles and Whooping Cough, as compared with the innocuousness of Scarlet Fever in babies under one year of age. Fourthly, the reduction in the death-rate from all forms of Tuberculous infections.

MIDWIVES ACTS, 1902 AND 1918.

Section 1 (*i*) of the Midwives Act, 1902, states "From and after the first day of April 1905 any woman who, not being certified under this Act, shall take or use the name of midwife (either alone or in any combination with any word or words), or any name, title or addition, or description implying that she is certified under this Act, or is a person specially qualified to practice midwifery, or is recognised by law as a midwife, shall be liable on summary conviction to a fine not exceeding £5."

Forty-seven midwives notified the Local Supervising Authority of their intention to practice during 1925 (Sec. 10 Midwives Act 1902). Of these, 2 died during the year and 4 removed out of the Borough. There were 41 on the register of midwives at the end of the year, and of these 34 were trained and held the certificate of the Central Midwives Board, and 7 were bona-fide midwives, *i.e.* were in practice as midwives at the time of the passing of the Midwives Act. The Local Authority do not employ or subsidise any midwives.

Confinements attended by Midwives.

Cases attended by Midwives alone	888
Cases attended by Midwives, when a Doctor was also engaged ...	192
Cases attended by Midwives when a Doctor was summoned	240
Total	1320

The following Table gives details of the reasons for sending for medical help. The rules of the Central Midwives' Board lay down that the Local Supervising Authority must be informed within 36 hours by a midwife if she has summoned medical help during pregnancy, in a confinement or within 10 days afterwards.

TABLE 70.

FOR COMPLICATIONS DURING PREGNANCY :—

Excessive Vomiting	2
Uterine Prolapse	2
Albuminuria	2
Eclampsia	1
Swelling of Feet	1
Dropsy	2
Phlebitis	2
Varicose Veins	3
Abdominal Pain	2
Total	17

FOR COMPLICATONS DURING LABOUR :—

A—Malpresentations—

Breech	5
Brow	2
Hand	1
Cord	1
Foot	1
Transverse	5
Face	7
Occipito-Posterior	9
Placenta Praevia	1
Undiagnosed	2
	34

B—Obstructed Labour—

Impacted Head	5
Rigid Cervix	1
Narrow Passages	3
Rigid Perineum	1
Obstructed Labour (Causes not diagnosed)	12
	22

C—Delayed Labour—

Uterine Inertia	6
Prolonged Labour	2
Delayed Labour (Causes not diagnosed)	23
	31

Total—87.

D—Hæmorrhage—

Antepartum	5
Post Partum	10
Threatened Abortion	4
Total	19

E—Other Causes—

Adherent Placenta	4
Retained Placenta	2
Miscarriage	4
Premature Birth	6
Torn Perineum	;20
Hysteria	1
Collapse	1
Rash	2
Patients' Request	2
Difficult Breathing	1
Heart Trouble	1
Vaginal Trouble	1
Total	145

FOR COMPLICATIONS DURING THE PUERPERIUM :—

High Temperature	8
Abscess	1
Total	9

FOR COMPLICATIONS IN RESPECT OF THE BABY :—

Inflammation of the Eyes ..	14	Pemphigus	1
Discharge from the Ears ...	1	Jaundice	3
Inflammation of the Breast..	1	Blueness of Baby	4
Spina Bifida	4	Feebleness of Baby	12
Hare-Lip	1	Convulsions	4
Malformation	1	Death of Baby	1
Hæmorrhage from rectum .	4		
Hæmorrhage from bladder ..	1	Total	53
Small Lump in Anus	1		

In compliance with Rule 12a of the Central Midwives Board the following midwives' Records of Discontinuance of Breast Feeding, with the reasons for this step, were received :—

Retracted Nipples	1
Lack of Breast Milk	3
On Medical Advice	1
Total	5

INSPECTORS OF MIDWIVES.

The Assistant Medical Officer for Maternity and Child Welfare—Dr. Ella Mackenzie, and the Senior Health Visitor—Miss Lowe, are the inspectors of midwives. Dr. Mackenzie had 48 interviews with midwives, at the Town Hall, and visited 7 in their own homes. Miss Lowe paid 133 visits to the homes of midwives. Of these visits 48 proved ineffective, the midwife not being at home. But for the fact that Miss Lowe was absent from duty owing to illness, for three months of the year, she would have visited each midwife at two-monthly intervals.

The cleanliness of the midwives' homes was satisfactory in all cases with the exception of one of the untrained midwives. This person is doing very little practice and is of advanced age.

The condition of the midwives' bags was satisfactory throughout the year, whilst the necessary case records and temperature charts were properly kept.

Twenty-eight midwives attempt some kind of ante-natal supervision, but unfortunately the attitude of many of their patients is not helpful. In more than one instance a midwife who conscientiously endeavoured to carry out ante-natal work, lost her client, who went to another midwife, less conscientious and thereby of less trouble to the patient. This attitude seems incomprehensible to all who know the value of ante-natal supervision, and it can only be put down to ignorance mingled with superstition.

If it were possible to persuade all the midwives to do some ante-natal work in all their cases, this erroneous attitude would be quickly broken down, but it would entail a little extra work, and many throughout all grades of humanity do not seek this object.

Twenty-two Maternity Bags were lent out during the year.

No midwives were reprimanded.

DOCTORS' ACCOUNTS UNDER SEC. 14 (1) OF THE MIDWIVES ACT, 1918.

Eighty-one accounts were received from doctors for services rendered to patients to whom they had been called in an emergency by a qualified midwife.

This compares with 61 in 1924 and 64 in 1923. The total amount of the accounts was £122 5s. 6d. The Sub-Committee assessed the amount recoverable from patients (Sec. 14(4) Midwives Act 1918) at £58 7s. 0d., and £42 7s. 3d. was actually paid by patients during the year.

The following suggestions for the improvement of domiciliary midwifery are put forward for consideration :—

I.—The appointment by the Borough Council of an obstetric Consultant. In Leeds the Town Council have made arrangements with the Honorary Obstetrical Staff of the Maternity Hospital to act as consultants for a specified fee when called in by medical practitioners for patients who are unable to afford specialist advice. In Dewsbury an obstetric specialist was retained in connection with the Maternity Home and his services were available on demand by medical practitioners.

II.—The subsidising of a competent midwife by the Council for services on patients unable to afford a doctor's or midwife's fee.

III.—The provision of skilled maternity nursing in cases unable to afford this facility.

IV.—The provision free or at cost price of sterile maternity outfits.

THE MATERNITY AND CHILD WELFARE CLINICS.

There are four Maternity and Child Welfare Centres, at which one session per week is held, and another at which two sessions weekly are held, making a total of six sessions a week. The Centres in 1925 were situated at Adelaide Street, Copy Nook, Nova Scotia (School Street), Kendal Street, and Griffin (Parochial Hall). The Centre at Adelaide Street was given up at the end of the year and alternative premises obtained in Prince's Street. The reasons for this step were: (*a*) the inadequate accommodation owing to growing numbers; (*b*) the dangerous proximity of the Clinic to a busy thoroughfare. The premises obtained are commodious and have been approved by the Ministry of Health.

A Doctor attends at each session together with two Health Visitors and, as a rule, three to four voluntary workers. The assistance rendered by these ladies is very real and I would like, on behalf of the staff and of myself, to thank them for the enthusiastic and unstinted service they have given. Quarterly meetings have been held at which the Medical Officer of Health meets the superintendents of the voluntary workers and at which matters affecting the work of the Centres are discussed.

Talks are given in alternate weeks to mothers by the Health Visitor in charge. Each Health Visitor is responsible for one Clinic premises and consequently the same talk is given six times. A syllabus was drawn up late in the year and each Health Visitor was supplied with a précis of twelve talks. This was done in order that the teaching would be uniform throughout. The Syllabus of Talks was as follows :—

I. Expectant Motherhood. II. Care of the New-Born Infant. III. The Diet of a Nursing Mother. IV. Breast Feeding. V. Artificial Feeding. VI. Weaning. VII. The Hygiene of Infancy. VIII, Baby Clothes. IX. The Development of the Child. X. Feeding from 1—5 Years. XI. Rickets. XII. Common Ailments of Infancy.

TABLE 71.

	Adelaide Street.	Copy Nook (2 sessi'ns w'kly).	School Street	Kendal Street.	Griffin	Total 1925	Total 1924	Total 1923	Total 1922
Infants :—									
New cases under 1 yr.	106	221	173	200	140	840	927	932	797
No. of re-attendances...	1232	2605	1413	2281	1225	8756	9173	8820	7274
New cases over 1 yr. ..	67	37	52	45	33	234	233	263	196
No. of re-attendances.	1433	2987	1355	1151	1629	8555	9201	7408	5646
Attendances of Infants	2838	5850	2990	3677	3027	18385	19534	17423	13913
Consultations with Doctor	993	1791	858	1065	1056	5763	6793	5469	4427
Expectant Mothers —									
No. of new cases	42	50	21	18	15	146	163	125	141
,, ,, re-attendances...	157	172	62	72	81	544	544	394	338
Total Attendances of Expectant Mothers	199	222	83	90	96	690	707	519	479
Total attendances	3037	6072	3073	3757	3123	19075	20241	17942	14392
Average attendance per session 1925......	60·4	63·7	62·3	75·0	63·1	*389			
1924.....	53·8	69·7	63·8	82·5	70·6		*410		
1923....	51·3	66·3	55·2	66·8	60·8			*366	
1922......	...	...	...	...	...				*294
1921......	...	...	...	...	...				

* Total average attendance each week at all the Centres.

In 1925, 1,902 children were born, and 840 children under 1 year attended the various Clinics. Although the two figures are not strictly comparable, it may be taken as a fair estimate that during 1925 approximately 44.1% of the babies born were taken to one of the Clinics.

The Consultations with the Doctor maintained a good figure, though smaller than in 1924. The percentage of the cases seen by a Doctor at each session and for each Clinic is as below :—

Adelaide Street	34·9%
Copy Nook	30.6%
School Street	23.7%
Kendal Street	29.2%
Griffin	34·8%

But for the unfortunate dislocation of the Health Visiting Staff in the first quarter of the year, and for the shortage of medical staff during six months of the year, the figures for 1925 would, in all probability, have exceeded those for 1924. This is proof of the popularity of these Clinics.

The attendance of new cases over one year of age is disappointing and is a branch of the work that can be extended.

The number of prospective mothers attending could be increased, though marked increments are not to be expected, as this work is uncertain, and Health Visitors have to rely on information obtained during the course of their routine visits under the Notification of Births Act.

Kendal Street Centre showed the greatest number of attendances and the largest number of new cases under 1 year of age; Adelaide Street, the greatest number of new cases over 1 year of age and the most new expectant mothers. This latter Clinic was the only one to show an increased average attendance per session. Adelaide Street Centre showed the highest percentage Consultations with the Doctor attending.

The Table below is intended to show the deaths of babies who at one time or another during their first year have attended a Clinic, as compared with deaths among those who have never attended. If a baby only attended once at a Clinic it is included in the Clinic babies.

TABLE 72.

Area	Deaths	Attended a Clinic		Attendance at Birth			Full Time Baby		Births during same period	Deaths in Institution		
		Yes	No	Doctor	Mid-wife	Doctor & Mid-wife	Yes	No		Q'eens Park	Royal Infir-mary	Spri'g-field
District ... I.	24	4	20	4	13	7	19	5	355	3	...	2
,, II.	38	6	32	8	9	21	28	10	338	...	...	3
,, III.	37	7	30	2	21	14	29	8	359	3	2	...
,, IV.	28	5	23	6	18	4	20	8	152	...	...	...
,, V.	17	4	13	1	9	7	13	4	316	2	1	1
,, VI.	42	5	37	6	15	21	27	15	382	4	2	3
	186	31	155	27	85	74	136	50	1902	12	5	9

The Infantile Mortality among the 840 babies under one year who attended the Clinics was 37 per 1,000 births. Among the 1,062 babies who did not attend the mortality was 146 per 1,000 births. Of the total deaths, 16.6% occurred in Clinic babies, but the percentage of all babies born who attended was 44. There is, therefore, a definitely lower rate of mortality among babies whose mothers bring them to the Clinic than among the remainder. This, apart from any medical or nursing advice that is given at the Clinics, is what might be expected. The very fact that a mother brings her baby shows that she is anxious to do her best and that she realises that the Clinic has something worth coming for to offer her. The indifferent mothers, or the mothers who are imbued with the knowledge handed down to them from former generations and believe there is nothing more to learn, are not those whom one would expect to attend.

MILK (MOTHERS AND CHILDREN) ORDER.

Table 73 gives the number of families who were in receipt of assistance under the provisions of the above-named Order during the year.

TABLE 73.

Price.	No. on Jan. 1st, 1925.	New Cases during Year.	Cases Discontinued.	No. on Dec. 31st, 1925.
Free	103	188	194	97
Quarter Price	21	37	42	16
Half Price	6	17	19	4
Total	130	242	255	117

For former years the corresponding figures (totals) are :—

1921	*58	606	576	†88
1922	*88	410	404	†94
1923	*94	433	363	†164
1924	*164	494	528	†130

* beginning of year †End of year

In cases where there has been a change from free milk to milk at a fractional cost, or *vico versa*, it has been counted as a new case. A very considerable diminution has occurred in the number of new cases. Taken in conjunction with the number of new cases attending the Clinics, this figure is a satisfactory feature pointing to (*a*) somewhat better trade conditions, and (*b*) the smaller number of mothers who attend with the primary object of so becoming eligible for food at a reduced cost. There is, without doubt, also a steady increase in the number of mothers who breast-feed their babies.

Formerly, families in receipt of Poor Law relief were precluded from obtaining food at the Centres and consequently some of the mothers ceased attending. A different arrangement was come to with the Guardians whereby babies' food was not included in the free food parcel allowed, but they were able to obtain it free at the Centre. In this way a watch was kept upon the progress of the babies.

The amounts—in pound weights—dispensed and the cost thereof for each month of the year is shown in the Table below.

TABLE 74.

Dried Milk—Pounds Weight.

Month	Given Free	One Quarter Price	One Half Price	Cost Price	Total Weight in lbs.	Nett Cost		
						£	s.	d.
January	644	122	24	614	1404	56	1	4½
February	588	145	13	519	1265	53	7	9
March	629	134	23	548	1334	56	3	6
April	672	126	24	484	1306	59	1	10½
May	736	105	26	508	1375	62	13	1½
June	650	78	16	455	1199	54	2	9
July	832	121	6	684	1643	69	18	10½
August	791	93	8	736	1628	65	3	6
September	831	91	31	873	1826	68	16	7½
October	795	92	13	1075	1975	65	12	3
November	703	90	9	985	1787	58	7	0
December	723	100	8	1052	1883	60	7	4½
	8594	1297	201	8533	18625	729	16	0

Wet milk has not been supplied. It is a necessity for those supplied with dried milk to attend weekly at the Centres, and so the babies are regularly weighed and examined. When wet milk is ordered, say for a period of three weeks or a month, the tendency is for some of the mothers only to attend when the time for renewal of the milk certificate expires. This is neither the spirit nor the function of Child Welfare Centres.

For past years the cost of supply of milk to expectant, and nursing, mothers and young children has been :—1921, £791 ; 1922, £514 ; 1923, £780 ; 1924, £850.

Most dried milk was supplied in the last four months of the year ; the least in June. Most free milk was given in July and September. The heaviest cost was in July and September. The proportion of the weight of free dried milk to the total weight was as 1 : 2.2, or 46.1%.

TABLE 75.

The Work of the Health Visitors.

Home Visiting.

	District I.	District II.	District III.	District IV.	District V.	District VI.	Totals
Visits to Expectant Mothers—							
First Visits	69	89	52	47	36	93	386
Re-visits	46	58	24	59	27	66	280
Ineffective Visits	9	29	4	11	13	1	67
Infants under 1 year—							
First Visits	281	372	399	215	289	345	1901
Re-visits	854	1222	1164	539	828	1277	5884
Ineffective Visits	20	192	185	135	183	12	727
Infants aged 1 year—							
Re-visits	409	876	531	546	514	791	3667
Special Visits	20	12	7	4	...	20	63
Ineffective Visits	70	96	84	77	97	12	436
Children 2—5 years	421	756	313	434	321	847	3092
Ineffective	68	36	47	42	101	10	304
Ophthalmia Neonatorum—							
First Visits	5	...	5	1	2	4	17
Re-visits	8	3	10	1	12	8	42
Diarrhœa—							
First Visits	4	5	10	6	1	9	35
Re-visits	5	13	5	1	4	19	47
Stillbirths	13	13	8	9	21	9	73
Infectious Diseases	...	9	23	3	10	61	106
Doctors' Accounts	8	17	12	5	12	11	65
Milk (Mothers & Children Order) Visits	2	45	4	2	...	14	67
Tuberculosis Visits	94	130	72	58	88	111	553
Midwives—							
Routine	82	..	..	...	...	...	82
Special	3	...	...	...	...	...	3
Ineffective	48	...	...	...	...	...	48
Puerperal Fever Visits	8	...	...	...	...	..	8
Houses where deaths of infants occured	8	35	24	25	6	56	154
Miscellaneous Visits	30	6	42	10	27	64	179
Totals	2585	4014	3025	2230	2592	3840	18286

TABLE 76.

Clinic Sessions Attended.

	District I.	District II.	District III.	District IV.	District V.	District VI.	Totals
Maternity and Child Welfare Clinics	71	118	101	93	87	91	561
Ante-Natal Clinics	14	21	13	71	...	15	134
Special V.D. Clinics...	...	...	...	46	2	...	48
Dr. Briggs Orthopædic Clinic ..	1	2	2	3	5	...	13
Dental and other Clinics	...	...	4	3	1	8	16
Totals	86	141	120	216	95	114	772

	I.	II.	III.	IV.	V.	VI.	Totals
The Total Houses visited were ..	2217	3083	2871	1414	2250	3333	15168
The Total Persons visited were ..	2580	4104	3119	2362	2786	4002	18953

The Health Visitors gave, in addition to the routine fortnightly talks to mothers attending the Welfare Centres, 18 addresses to students at the Domestic Science School. I have already given the syllabus of the fortnightly talks at Centres (See page 136).

There is manifest a drop of 4,119 persons visited as compared with the previous year. This is explained by the fact that one Health Visitor (District VI.) left and the District was without a visitor for a month. Another District (V.) was also without a visitor for the same reason; whilst the visitor responsible for District I. was away ill for 3 months.

It will be gathered that for the purposes of Maternity and Child Welfare the Town is divided into six Districts. They are as follows :—

DISTRICT I.

Areas.—Higher Audley District : Boundary, Higher Audley Bridge, Bennington Street, Queen's Road to Shadsworth Road, Higher Audley Street, Lambeth Street, Audley Range to Accrington Road.

Higher Eanam, Bottomgate, Furthergate, Accrington Road to Borough Boundary beyond Intack, Shadsworth Road on the right, Peronne Crescent on the left.

Wellington Inn to Boundary, Whitebirk, including district bounded by the Canal and Railway, along Stanley Street to the Railway Bridge in Stanley Street.

Wards.—Parts of St. Stephen's, Trinity, St. Mary's, St. Matthew's, St. Thomas's.

DISTRICT II.

Area.—Bridge Street following Railway line as boundary to Mill Race across to Catterall Street, Livesey Branch Road to Borough Boundary at Cherry Tree. Also Heyes Lane to Borough Boundary. From Cherry Tree boundary line of Redlam, Bank Top, Whalley Banks, King Street, Church Street to Railway Station.

Wards.—Parts of St. Peter's, St. Luke's, St. Marks, St. Andrew's.

DISTRICT III.

Area.—Darwen Street Bridge along Bolton Road bounded by the Railway to Hollin Street, Peel Street to the Mill Race, across to Catterall Street (Livesey Branch Road), Bolton Road, Ewood, to Boundary at Darwen, along Sandy Lane, all Lower Darwen and Guide to the Boundaries at Belthorn and School Lane, Haslingden Road, Bennington Street, Lower Audley Street to Darwen Street Bridge.

Wards.—Parts of St. Mary's, St. Thomas's, St. Andrew's, St. Luke's, St. Matthew's, and the whole of Park.

DISTRICT IV.

Area.—Salford to Eanam Bridge (Canal), Forrest Street to Appleby Street, Stanley Street to Railway Bridge, Moss Street, Penny Street, Larkhill (right side), Whalley Old Road, Ainsworth Street to Regent Street, Railway Road to Railway Station, to Foundry Hill.

Wards.—Parts of St. Mary's, St. Stephen's, Trinity.

DISTRICT V.

Area.—Victoria Street and Regent Street, left of Larkhill, all Streets left of Whalley Old Road, along Bank Hey Road to Roe Lee and Wilpshire boundary.

Arterial Road to Seven Acre Brook, Pleckgate Road to Four Lanes End.

Town Hall, Limbrick, east of East Park Road to Four Lanes End.

Wards.—Parts of St. Stephen's, St. Michael's, St. John's (all), St. Mary's, St. Silas's.

DISTRICT VI.

Area.—Boundary, Seven Acre Brook, Four Lanes End, Arterial Road, Revidge Road, Billinge Side, to Yew Tree.

Buncer Lane, Witton Park, Redlam, Bank Top, Whalley Banks, King Street, Lord Street West, Nab Lane, Northgate, Preston New Road.

Wards.—St. Silas's, St. Paul's, parts of St. Peter's, St. Luke's, St. Mark's, St. Michael's.

CARE OF ILLEGITIMATE CHILDREN.

Close co-operation has been maintained wth the Manchester Diocesan Association of Preventive and Rescue Work, who have in Blackburn the "Viewfield Hostel." The babies, with their mothers, come from all parts of the Diocese. The unmarried mothers with their babies are admitted to the Hostel as soon after confinement as possible. During the lactation period the mother is employed in household work at the Hostel. After the child is weaned, daily work in the town is found for the mother until the child is eighteen months old.

I am indebted to the matron for the figures given below of the work done during the year.

	Mothers.	Babies.	Boarders.
Number of Beds	12	12	4
Number of Cases admitted, 1925	13	13	—
Number in Hostel, Jan. 1st, 1926	10	10	4
Number returned to relatives and friends..	3	—	—
Number of Mothers sent to situations ...	7	—	—
Babies kept as temporary boarders	—	—	—
Babies taken back as boarders	—	—	—
Baby boarders discharged	—	—	1

At the end of the year there were 6 babies under one year. Of these, 5 were on four-hourly breast feeds.

DENTAL TREATMENT OF MATERNITY AND CHILD WELFARE PATIENTS, 1925.

Miss E. Thomson, the School Dental Surgeon, in addition to the time spent in school dentistry, and in the treatment of Tuberculous patients urgently needing attention, did the following work on cases referred to her from the Maternity and Child Welfare Department :—

Number of Sessions held		12
Number of Patients—Mothers	2	
Children	82	— 84
Number of Visits paid to Dental Clinic		87
Permanent Teeth extracted		4
Temporary Teeth extracted		82
Temporary Teeth filled		3
Other Operations		32

There is a peculiar prejudice among expectant mothers to having any dental treatment done during pregnancy. There does not appear to be any scientific reason for this hesitancy and it is difficult to imagine anything but good resulting from the removal of septic foci in the mouth. This erroneous attitude is hard to overcome and repeated admonition, explanation and education will be required before the amount of dental treatment necessary in these women can be carried out.

THE PRE-SCHOOL CHILD.

CAUSES OF DEATH IN CHILDREN FROM 1 TO 5 YEARS OF AGE.

Respiratory Diseases	37
Infectious Diseases (Non-Tubercular)	34
Tuberculosis—all forms	4
Digestive System Diseases	3

TABLE 77.

Year	Population	Births	Deaths under 1 year	% of total deaths	Deaths 1-5 years	% of total deaths	Deaths over 5	% of total deaths	Total Deaths
1920	127700	2827	311	17·3	63	3·5	1412	79·1	1786
1921	129400	2528	276	16·7	66	4·0	1313	79·3	1655
1922	129376	2177	215	11·6	118	6·4	1510	81·9	1843
1923	129000	2094	210	12·1	81	4·6	1445	83·2	1736
1924	129000	1980	167	9·2	90	4·9	1553	85·8	1810
1925	126900	1902	186	10·5	103	5·8	1478	83·6	1767

As a result of the medical inspection of the Entrant group of School Children, it is found that a considerable number of children develop various maladies between the time of cessation of attendance at Welfare Centres and the time of entering school. Enlarged Tonsils and Adenoids and Chronic Otorrhœa are among the commonest ailments discovered. Again, a perusal of Table 15 (Infectious Diseases Section) shows that a considerable proportion of the notifiable infectious diseases attack children between these ages (29% for Scarlet Fever and 26.9% for Diphtheria). Table 8 (Vital Statistics Section) emphasises still more the necessity for careful supervision during this period of life. All the deaths from Whooping Cough, 90% of deaths from Measles, and 66% of the deaths from Scarlet Fever occurred during this age period

Although the primary object of Maternity and Child Welfare Clinics is to deal with infants up to 18 months or two years of age, an endeavour is made to keep supervision over the older children until school age is reached.

The Table given above shows that, although there has been a distinct fall since 1920 in the Infantile Mortality rate, the death-rate in the group 1—5 years shows no such tendency.

INSPECTION AND SUPERVISION OF FOOD.

Clean Food.

The object of Health activities is,—apart from remedying outstanding insanitary conditions, and in minimising the evils wrought by such agencies—to bring about the growth of a Sanitary conscience. In many respects this has already been done, but there is a curious apathy in relation to food cleanliness. This country was the pioneer in the more mechanical and in the personal aspects of public health progress, but it lags far behind many other countries in its attitude towards clean food.

Much effort has resulted in an advance in the general cleanliness of the milk supply, and the number of Grade A and Certified (T.T.) producers and distributors is steadily increasing, indicating an increased demand. There is still sold, however an enormous volume of ungraded milk of very variable standards of cleanliness. It would perhaps be better to grade farms rather than milk and to allow of milk being sold at a higher price from the most highly-graded farms. There are premises from which milk is sent into Blackburn on which it is an impossibility to produce milk of a reasonable cleanliness. The Veterinary

Inspector and myself have, during the year, made a point of visiting every farm which we ascertain is sending milk into the town. Our visits have resulted in a marked improvement in many cases, and one farmer whose milk was found to be very grossly contaminated in June of 1925 had so far improved as to make a most creditable showing in the Clean Milk Competition, 1926. This was done in spite of very adverse conditions on the farm.

As many of the farms sending milk into Blackburn are without the Borough, our visits are made in friendly conjunction with the representatives of the Local Authorities concerned. This co-operation is most helpful, and our Department appreciates very fully the assistance rendered.

There are three ways of cleansing milk churns and utensils. Firstly, by rinsing in cold water, then scrubbing in hot soda water and then rinsing again in cold water. Secondly, by proceeding as above and using boiling water instead of hot soda water. Thirdly, by washing in the ordinary manner and afterwards steaming, the steam being obtained either from a pressure boiler, or by means of the ordinary wash-boiler with a cover and tube attachment over which the churn is inverted.

It has been proved by experiments that satisfactory bacterial cleanliness is impossible with the first method; possible but difficult with the second method; easy with the third method provided steaming is carried out for 20 minutes at least.

Thorough bacteriological cleanliness, especially in hot weather, is a sound economic proposition. A clean milk will keep fifty per cent. longer than a dirty milk; whilst apart from monetary considerations, there is no comparison allowable between clean and dirty milk when the health and well-being of babies is under consideration.

Although the Milk and Dairies Act requires all producers and retailers to be registered, the Local Authority can, apparently, not withhold registration indefinitely.

Milk may be contaminated at its source—milking: during transit to the distributor, during distribution, and in the homes of the recipients. It is a fluid very absorbent of odours of all kinds, and it is also a peculiarly good medium for bacterial growth. Contaminations in the home are under the control of the drinker of the milk. Contamination upon milk premises is not easily controlled under the present powers. There is in use a form of milk container in Blackburn which is for the purpose of storing milk in retail shops. Whatever the merits or demerits of this particular implement may be, it is certainly exerting a most undesirable influence by enabling multitudinous general shops to sell milk as one of numerous side lines. Retail premises selling milk should devote themselves to dairy produce, and should consist of two parts—a place for cleaning and sterilising the milk vessels and a place for storing the milk. I have visited a number of premises selling milk retail, and all had the approved container, though the varieties exhibited were diverse. In one case—a general shop—the milk was placed in the container and then run into an open pan underneath from which it was ladled into customers' jugs ! The majority of the containers were difficult to keep clean : the ordinary tap fixed is absolutely impregnable to the attacks of soap and water.

The whole principle of selling milk from many small shops dealing in all kinds of goods, is wrong. If all milk were bottled on approved bottling premises and sold in sealed bottles, the objection perhaps would not be so great. At the present time beer is distributed in a far more sanitary manner than is the more important food, milk, and beer does not encourage organismal growth to the same degree as milk.

Cream should always be sold bottled, and preferably pasteurised; whilst definite regulations are required for the sale of ice-cream.

Butter and margarine are best sold in wrapped packages and not exposed in bulk upon counters. The larger provision shops in the town are making commendable efforts to maintain a high sanitary standard, but unfortunately they are handicapped by some of the customers they serve.

Various items of grocery are often exposed to unnecessary risks of contamination from flies, etc. The showing of sugar, raisins, dried figs, prunes, etc., in shop windows is insanitary. Storing sacks of commodities on the floor of the shop, where they are open to receive attention from passing dogs, and exposed to dust, is a reprehensible practice. This statement applies also to vegetables. The transport of vegetables could be much improved upon. For only one edible commodity are special railway vans supplied, viz., bananas : and this concession has nothing to do with cleanliness, but rather with commercial value.

Special attention has been paid to fish during the year. In conjunction with Mr. Goodman, I have paid visits to the wholesale fish market and representations have been made to the railway company on certain aspects. Improvements have been effected, and the traffic in fish, particularly between Fleetwood and Blackburn, is satisfactory. A good standard of cleanliness is maintained, whilst the quality of the fish is high. Fish from some other ports, however, is not handled—in transit—in so satisfactory a manner, some of the vans, and fish boxes, having been found in a most uncleanly condition.

The wholesale dealers in the fish market have co-operated with the Health department in a very commendable fashion, and the standard of cleanliness observed by them is worthy of emulation by all persons engaged in handling and preparing food for public consumption.

Shell Fish. A strict watch has been maintained upon consignments of Shell Fish coming into the Borough. 12 samples have been submitted to bacteriological examinations by the Fishmongers Company and in the Public Health Laboratory, Manchester.

The areas from which samples have been taken and submitted to Bacteriological Analysis have been : Rampside, Barrow-in-Furness ; Isle-of Barra, Scotland ; Piel, Barrow-in-Furness ; Badger, Butts, Little Neston ; Park Gate, Cheshire ; Morecambe Bay, and Ravenglass.

The cleanest sample was one of mussels from Ravenglass, but even this was not so clean as to be absolutely safe for human consumption.

The general public do not appear to comprehend the danger of eating shell fish from sources contaminated with human sewage. Unfortunately, molluscs showing the fattest and finest condition are the most likely to be contaminated, in the same way as well-manured plants are the biggest. The mollusc, in contradistinction to vegetables, harbours within itself unchanged the intestinal organisms of human beings. For example, if excreta from a case of Typhoid Fever reach, even in a dilute form, one of the molluscs, the organisms of Typhoid are swallowed by it and retained so that, when consumed by another human being, and particularly so if it is not properly cooked, the typhoid bacillus in handed on, and another case of the illness arises.

Shell fish are either eaten raw or very imperfectly cooked, and herein lies their danger.

If placed in clean, running water and left therein for a few days, shell fish will rid themselves of any traces of sewage contamination. It does not seem a very exorbitant demand to ask that proper tanks be installed at points so that shell fish from the various areas can be sent for cleansing before they are put on the market. As at present carried on, nobody who realises the meaning of clean food, could possibly recommend shell fish for eating, and I venture to think that did the buying public fully realise the conditions, the consumption of this commodity would fall considerably.

The following Table gives the Bacteriological findings :—

TABLE 78.

Nature of Sample.	*Source.*	*Cleanliness.*
Winkles	Ramp Side, Barrow.	0% clean.
Cockles	Isle of Barra, Scotland.	20% clean.
Winkles	Piel, Barrow.	10% clean.
Mussels	Badger Butts, Little Neston.	70% clean.
Cockles	Badger Butts, Little Neston.	30% clean.
Mussels	Park Gate, Cheshire.	30% clean.
Mussels	Ravenglass, Cumberland.	80% clean.
Mussels	Morecambe Bay.	10% clean.
Mussels	Park Gate.	50% clean.
Mussels	Morecambe Bay.	0% clean.
Cockles	Badger Butts.	20% clean.
Mussels	Badger Butts.	50% clean.

None of the above were absolutely safe for human consumption, whilst 83% of them were definitely unfit for human consumption from the Bacteriological standpoint.

THE BACTERIOLOGICAL EXAMINATION OF MILK.

Ninety-three samples were submitted to the Bacteriologist, Public Health Laboratories, Liverpool. The following is a summary of his findings :—

Bacillus Coli Content—

Not found in 1 cubic centimetre	34
Found in 1 c.c. only	4
,, 0.1 c.c.	10
,, 0.01 c.c.	30
,, 0.001 c.c. or higher dilution	11
Examination not done for some reason or other	4
	93

Presence of Tubercle Bacilli.—Milk samples taken in course of delivery:—

Tubercle Bacilli found in 5 samples.
Tubercle Bacilli not found in 79 samples.
Guinea Pig died before a result obtained: 7 samples.
Examination not done: : 2 samples.

The presence of Bacillus Coli or a member of its group is an indication of contamination of the milk with manurial matter. The above samples showed 38.2% clean, 33.7% with considerable manurial contamination, and 12.3% grossly contaminated.

Tubercle Bacilli were found in 5 samples out of 79 fully tested, a percentage of 6.3.

A fuller report concerning the examination of milk is given in the Veterinary Inspector's report (pages 160 to 163). The figures given above are included in his figures.

VETERINARY INSPECTOR'S REPORT.

To the Medical Officer of Health, Blackburn.

I have pleasure in submitting the following report for the year 1925:—

Meat Inspection. It may now be said that practically all the animals slaughtered for human food in Blackburn are slaughtered at the Public Abattoir, as there is only one private slaughterhouse in existence and that belongs to a firm whose main supply comes from the Abattoir.

The number of animals slaughtered was 90,306.

This is less than the three previous years, but it was probably mainly due to restrictions owing to the prevalence of Foot and Mouth Disease.

There are certain things in meat inspection which are forced to our notice year after year. The prevalence of Tuberculosis is always a disturbing factor. The number of susceptible animals (cattle, calves, and pigs) affected with Tuberculosis during 1925 was 334, or 1.835% of those slaughtered. Corresponding percentages in 1924 were 1.87; in 1923, 1.64; and in 1922, 1.4.

The number of carcases in which the disease was so advanced as to necessitate total condemnation was 69, as compared with 85 in 1924, 54 in 1923, and 37 in 1922. In cattle, particularly, Tuberculosis accounts for a large proportion of the total condemnations. In 1925 only 16 carcases were condemned for diseases other than Tuberculosis, and most of these were from emergency slaughterd animals. A disease rarely described in England accounted for one of the carcases of cattle totally condemned, namely : Cysticercus bovis, or measly beef.

As this condition causes a certain parasitic affection of the human being, it would be interesting to know how its apparent rarity in English meat compares with the prevalence or otherwise of the affection in the human being.

Another parasitic affection of cattle and sheep is responsible for the condemnation of a large amount of what would otherwise be good food material, namely, the liver fluke. Out of 3,001 livers condemned as being unfit for human food, 2,415 were affected with this condition.

The total loss to the country due to this parasite must be very heavy, as, in addition to the loss of livers, many animals never reach the slaughterhouse, but die through emaciation caused by this parasite.

Visits were regularly made during the year to butchers' and other meat shops, food-preparing premises, wholesale and retail fish markets and meat market.

TABLE 79.

Number of Animals slaughtered at the Public Abattoir.

1925	Beasts	Sheep	Calves	Pigs	Goats	Total
January	1285	7512	233	772	...	9802
February	987	5505	230	608	...	7330
March	912	5027	289	390	...	6618
April	896	5007	389	309	...	6601
May	1004	6218	177	260	...	7659
June	683	5758	89	76	...	6606
July	735	6972	150	96	...	7953
August	818	6233	150	80	...	7281
September	862	6040	183	273	...	7358
October	1007	6874	226	513	1	8621
November	888	5150	144	241	...	6423
December	1069	5811	149	1025	...	8054
Total	11146	72107	2409	4643	1	90306

	Beasts.	*Sheep.*	*Calves.*	*Pigs.*	*Total.*
1920	8822	39345	2420	4112	54699
1921	8398	65717	2318	5076	81509
1922	10565	85049	2599	4409	102622
1923	10644	77050	3420	4522	95636
1924	11380	82977	2645	4503	101505
1925	11146	72107	2409	4643	90306

NUMBER OF CARCASES AND PORTIONS OF CARCASES BROUGHT TO THE ABATTOIR.

TABLE 80.

1925	CARCASES			BEEF		
	Beef	Mutton	Pork	Hind Quarters	Buttocks	Clods
January	7	178	199	36	17	...
February	13	197	81	...	15	...
March	15	224	91	9	23	...
April	40½	323	39	30	25	...
May	6	254	44	13	15	...
June	10½	222	14	37	31	...
July	17½	187	11	33	21	...
August	11	150	30	5	14	...
September	3	98	31	...	5	...
October	4	90	35	...	5	...
November	6	268	130	...	...	...
December	14	63	282	2	...	...
Totals	147½	2254	987	165	171	...

Cases of		Lengths of	Tins of
Kidneys.	Pork.	Pork.	Meat.
575	97	672	1

TABLE 81.

TUBERCULOUS CARCASES EXAMINED AND REJECTED.

1925	Cows		Heifers		Bulls		Bullocks		Calves		Sheep		Pigs		Totals	
	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected	Examined	Rejected
January	15	2	1	1	2	...	2	...	...	...		...	11	1	31	4
February...	14	4	1	...	4	...	1	...	...	...	...	...	17	...	37	4
March	13	5	2	1	...	...	1	...	...	...	...	...	5	1	21	7
April	17	6	...	...	3	...	2	...	...	...	...	...	8	1	30	7
May	15	2	...	...	3	1	2	1	...	...	...	...	6	2	26	6
June	10	3	2	...	3	...	2	1	...	...	...	...	5	...	22	4
July	10	3	2	...	2	...	1	...	...	...	...	...	2	...	17	3
August	9	2	1	1	1	1	1	...	...	...	...	...	7	...	19	4
September	16	8	4	2	1	...	5	1	...	...	...	...	7	...	33	11
October	12	5	2	...	1	...	1	...	...	...	...	...	7	1	23	6
November	11	1	...	...	1	...	2	...	...	...	...	...	20	2	34	3
December	15	6	2	...	...	...	2	1	...	...	...	...	22	3	41	10
Totals	157	47	17	5	21	2	22	4	...	...	...	...	117	11	334	69

TABLE 82.

TUBERCULOSIS IN THE ANIMALS SLAUGHTERED.

Kind of Animal.	Number Slaughtered.	Of which were Tuberculous	Totally Rejected.	Extent of the Tubercular process in partially rejected carcases.														
					THORAX.			ABDOMEN.										
				Heads.	Lungs	Heart and Pericardium	Serous Membranes	Livers	Stomachs	Spleens	Kidneys	Intestines	Uteri	Serous Membranes	Bones	Testicles	Udders	Parts of Carcases in lbs.
Cows	1620	157	47	74	107	...	91	10	25	...	...	...	...	29	...	...	24	4911
Heifers	1394	17	5	9	12	...	11	1	2	...	...	...	...	2	...	...	...	528
Bulls	1370	21	2	12	19	...	12	...	2	...	...	...	...	2	...	...	...	310
Bullocks	6762	22	4	10	18	...	10	...	1	...	...	...	...	1	...	...	...	300
Calves	2409	...	...	...	...	...	...	..	...	...	...	...	...	...	...	. .	...	...
Pigs	4643	117	11	106	106	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals......	18198	334	69	211	262	...	124	11	30	...	...	...	...	34	...	...	24	6049

Sixty-nine whole carcases were rejected on account of Tuberculosis, in 1925. Among parts of carcases rejected the lungs were the most frequently implicated and then the serous membranes such as the pleura and peritoneum. The absence of any Tuberculosis in the kidneys is interesting. The liver was also rarely affected.

The incidence of Tuberculosis is greatest in cows and pigs. In pigs the commonest site of the disease is in the neck glands and the lungs. The frequency of attack in the neck glands has an important relation to the quality of the milk supply in the districts in which the pigs were reared or fattened.

TABLE 83.

DISEASED CARCASES EXAMINED, REJECTED AND DESTROYED FOR DISEASES, ETC., OTHER THAN TUBERCULOSIS.

CARCASES.

BEEF		MUTTON		VEAL		PORK		GOAT	
Disease	No.	Disease	No.	Disease	No.	Disease	No.	Disease	No.
Congested	2	Asphyxia	24	Joint ill	43	Unsound	16	Emaciation	1
Septicaemia	5	Oedematous	37	Jaundice	11	Asphyxia	1		
Emaciation	2	Nephritis	13	Congested	4	Erysipelas	2		
Haemorrhage	1	Parasitic	18	Immature	18	Swine Fever	13		
Extensively Bruised	1	Congested	34	Oedematous	7	Rachitis	3		
Oedematous	1	Difficulty in Parturition	1	Staggers	1	Congested	5		
Toxaemia	1			Peritonitis	1	Oedematous	11		
Anthritis	1	Unsound	15	Nephritis	2	Arthritis	1		
Cysticercus Bovis	1	Jaundice	1	Septicaemia	2	Septicaemia	1		
Staggers	1	Pneumonia	1	Pyaemia	1				
		Emaciation	7	Emaciation	1				
		Bruised	3						
Totals	16		154		91		53		1

TABLE 84.

ORGANS AND PARTS OF CARCASES EXAMINED, REJECTED AND DESTROYED FOR DISEASES OTHER THAN TUBERCULOSIS.

Disease or Condition.	Diaphragm	Tongues	Heads	Lungs	Hearts	Livers	Stomachs	Udders	Intestines	Kidneys	Tails	Lbs. of Meat
Fluke	...	...	...	...	...	2415	...	...	...	...	...	...
Cirrhosis	...	...	...	...	...	209	..	...	...	...	...	...
Angioma	...	...	...	...	...	70	...	...	...	...	...	...
Cysts	...	...	...	...	...	...	...	...	...	...	...	...
Unsound	...	3	289	297	291	282	2	23	...	...	...	2429
Abscesses	...	...	...	...	...	11	...	...	...	...	...	...
Actinomycosis	...	...	4	...	...	...	...	...	...	...	...	...
Mastitis	...	...	...	...	...	...	...	82	...	...	...	...
Parasitic	...	...	...	21	...	14	...	...	5	2	...	...
Nephritis	...	...	...	...	...	...	...	...	...	4	...	...
Bruised	...	...	...	...	...	...	...	...	...	...	...	970
Congested	...	...	...	3	...	...	...	...	...	...	...	...
Pericarditis	...	...	...	...	...	...	...	...	...	...	...	...
Dropsical	...	...	...	...	7		...	...	1	...	...	...
Total	...	3	293	321	298	3001	2	105	6	6	...	3399

TABLE 85.

FISH, RABBITS, ETC., EXAMINED, REJECTED AND DESTROYED.

		Fish					Rab-bits	Eggs	Tins of Sheep Gut	Fowl
Bags	Shrimps Pots	Boxes	Barrels	Bags	lbs.	Crabs				
4	13	356½	1	38½	407½	64	1703	825	1	22

NUMBER OF VISITS TO INSPECT FOOD.

Fish Shops	753
Provision Shops	698
Butchers' Shops	1622
Private Slaughterhouses	155
Meat Market	194
Fish Market	270
Railway Station	275
	3967

TABLE 86.

CARCASES, ETC., SENT FOR UTILIZATION.

	Tons.	*Cwts.*	*Qrs.*
January	6	7	3
February	4	0	0
March	5	3	2
April	4	4	0
May	5	9	2
June	3	7	0
July	3	15	3
August	3	2	0
September	7	4	0
October	5	0	2
November	4	3	2
December	6	0	0
TOTAL	57	17	2

Milk. The fourth annual Clean Milk Competition was held from January to March, 1925. This was the first competition for the Redmayne Cup, Alderman Fielding's Cup having been won outright the previous year by Mr. A. Butterworth, Lower Shadsworth Farm. The Redmayne Cup was won by Richard Kinder, Beardwood Fold Farm. Milk producers generally have not yet realised the value of such competitions, with the result that the number of entries is still small.

The number in 1925 was five; but it is extremely gratifying both for the producers and for the promoters of the competition to find such a high standard of cleanliness.

The great value of steam as a steriliser of milk utensils was well shown in the bacterial counts as the highest count of milk came from a farm where the conditions generally were very good, but the utensils were washed in the ordinary way.. The bacterial count of milk from this farm was five times the count of milk with the lowest count which came from a farm where steam was used.

The important point which many producers fail to realise, is that a steaming plant may cost as much or as little as they care to pay. The improvisation from an ordinary wash-boiler is extremely effective.

Certified Milk. A supply of Certified milk was on sale in Blackburn throughout the year at the price of 7½d. per pint.

Grade A Milk. At the beginning of the year there were supplies of Grade A milk from three farms, two of which are in the Borough and one outside.

At the end of the year there were five, three of which are in the Borough and two outside.

Farm and Dairy Cattle Inspection. During the year I paid 177 visits to farms, inspected 306 cowsheds, and examined the mammary glands of 3,511 cows. Five cows on four farms were found to be affected with Tuberculosis of the udder : four of these cases occurred on three farms in the Borough, and one case at a farm outside the Borough from which milk was being supplied to Blackburn.

Four of the above cases were reported by the owners ; the fifth case was discovered when making a routine examination of the herd, following the reported case.

All the cows were slaughtered, and on post-mortem examination were found to be affected with Tuberculosis in an advanced degree.

Seven cows were suffering from Mastitis, but the milk was not sold for human food.

Three cows showing clinical evidence of Tuberculosis were slaughtered and on post-mortem examination were found to be affected with Tuberculosis in an advanced degree.

Bacteriological Examination of Milk for Tubercle Bacilli. During the year 102 samples of milk were collected and examined for the presence of tubercle bacilli. 100 of these were submitted to Prof. Beattie, Liverpool University, for the biological test : the remaining two were examined by me microscopically.

The samples were made up as follows :—94 mixed samples were taken in the course of delivery; 7 special samples were taken direct from individual cows showing some abnormality of the udder, and one control sample taken at the farm to control the clinical examination of the herd.

Of the 94 mixed samples taken, 83 were negative; 3 were positive; and in 8 cases the experimental animal died before the test was completed.

Of the 7 special samples taken, 2 were negative and 5 were positive.

The control sample was negative.

The 3 positive mixed samples were from a Certified farm and two other farms outside the Borough.

As the certification of a Certified farm is in the hands of the Ministry of Health, the investigation at that farm was not carried out from Blackburn.

I visited the two other farms from which Tuberculous samples had been received, and examined the cattle, but failed to find any cow affected with Tuberculosis of the udder; and subsequent samples taken proved that the Tubercular infection of the milk no longer existed. In the case of one of the farms, a cow had been sold, and it is therefore possible that the infection had come from that cow; but in the case of the other farm no cows had been sold, so that it is difficult to account for the result.

Of the 7 special samples taken, the 2 which proved negative were taken from the udders of cows showing some abnormality, at farms from which Tuberculous milk supplies had been received. The five positive examples were from five cows showing clinical evidence of Tuberculosis of the udder, and this was confirmed at the subsequent post mortem examination in each case.

Mixed samples of milk supplied to the Royal Infirmary and the Corporation Hospital were taken monthly and examined for the presence of Tubercle bacilli and on each occasion were found to be free.

Examination of Milk for Dirt. During the year 151 samples of milk were taken and submitted to me for examination for the presence of dirt.

32 of these samples were taken from producer-retailers whose premises are within the Borough, and were classified as follows:—

Clean	6	or	18.75%.
Fairly clean	10	or	31.25%.
Contaminated	12	or	37.5%.
Grossly contaminated	3	or	9.37%.
Very grossly contaminated	1	or	3.12%.

35 samples were taken from retailers who reside within the Borough but who procure their supplies from producers whose premises are for the most part outside the Borough.

Fairly clean	8	or	22.85%.
Contaminated	9	or	25.71%.
Grossly contaminated	12	or	34.3%.
Very grossly contaminated	5	or	14.3%.
"Ropy"	1	or	2.8%.

76 samples were taken from producer retailers whose premises are situated outside the Borough:—

Clean	2	or	2.63%.
Fairly clean	25	or	32.9%.
Contaminated	31	or	40.8%.
Grossly contaminated	10	or	13.15%.
"Ropy"	8	or	10.5%.

8 samples were taken from retailers who reside outside the Borough and also obtain their supplies from farms outside the Borough.

Contaminated	3	or	37·5%.
Grossly contaminated	1	or	12.5%.
Very grossly contaminated	4	or	50.0%.

In all cases of contamination, gross or very gross contamination, you sent letters to the vendors warning them. I investigated the cause of the ropy milk samples, and the necessary steps were taken to remedy the defects.

In each case when a sample of milk is taken and examined for the presence of dirt, an official sample is also submitted to the Public Analyst. During the year no official sample contained sufficient dirt to warrant a prosecution.

The Milk and Dairies (Consolidation) Act, 1915, came into force on September 1st, 1925, and it is of special interest that under this Act the Milk Clauses of the Blackburn Corporation Act, 1901, will be repealed on September 1st, 1926. For 25 years Blackburn has had powers to deal with Tuberculous milk, which are now only becoming national, and general.

REPORT OF THE VETERINARY INSPECTOR ON WORK DONE UNDER THE DISEASES OF ANIMALS ACTS AND ORDERS DURING THE YEAR 1925.

Foot and Mouth Disease. There were 255 outbreaks in Great Britain, necessitating the slaughter of 17,901 animals which were diseased or had been exposed to infection.

Blackburn was involved in an intensive outbreak which occurred in the last three months of the year.

Following a case which was discovered outside the Borough, the disease was found at the Abattoir, in animals which had been brought from grazing fields for slaughter, and later in animals on five farms in the Borough, and in animals at the Cattle Market Hotel adjacent to the Cattle Market.

In all cases all the animals on the premises were slaughtered and the premises disinfected.

Restrictions were imposed over a large area including Blackburn, and this necessitated a large amount of extra work for the police who served the necessary notices and carried out the licensing for movement of stock. Their assistance was invaluable and contributed greatly to the suppression of the disease.

Anthrax. There were 675 outbreaks in Great Britain affecting 784 animals.

There was one case to record in Blackburn. A report was received from a knackeryard in the Borough that there were suspicious signs in a carcase which had been brought from a farm outside the Borough. A microscopical examination of material from the carcase showed the presence of Anthrax bacilli. The carcase was removed to the Audley destructor and cremated; the premises were disinfected, and the persons involved were kept under observation as long as there was danger of infection.

Three cases of unexplained sudden deaths in cattle were reported, but microscopic examination of blood in each case was negative.

Parasitic Mange. There were 531 outbreaks of this disease in Great Britain. Only one case occurred in Blackburn and this was detained until cured.

Glanders. Two outbreaks involving 2 animals occurred in Great Britain. No cases occurred in Blackburn.

Sheep Scab. There were 665 outbreaks in Great Britain.

Swine Fever. 1,632 outbreaks of this disease were reported in Great Britain.

Swine Fever was discovered in 4 carcases of pigs at the Abattoir during routine meat inspection, which came from a farm in the Borough. The carcases were cremated at the Audley destructor, and the farm premises were declared a Swine Fever infected place. A few days later the owner reported that 7 store pigs detained on his premises were ailing. Examination showed that they were all affected with Swine Fever. The owner agreed to slaughter without compensation and the carcases were removed to the Audley destructor and cremated. The owner was subsequently fined £5 and costs for not notifying the existence of the disease.

Swine Fever was also discovered in one pig slaughtered at the Abattoir. This carcase was also removed to the Audley destructor and cremated.

A report of suspected Swine Fever on premises within the Borough was investigated and found to be negative.

Tuberculosis. The Tuberculosis Order of 1914 was suspended in August, 1914, and the Tuberculosis Order of 1925 to replace it came into force on September 1st, 1925.

Under its provisions "(i) any cow, which is, or appears to be, suffering from Tuberculosis of the udder, indurated udder, or other chronic disease of the udder; or

(ii) any bovine animal which is, or appears to be, suffering from Tuberculous emaciation; or

(iii) Any bovine animal which is suffering from a chronic cough and showing definite clinical signs of Tuberculosis," must be notified to the Local Authority.

These cases are examined by the Veterinary Surgeon, and if they come under the provisions of the Order, their market value is agreed, and they are slaughtered. The amount of compensation payable depends on the extent of the disease found on post mortem examination, three-quarters of the market value being payable where the Tuberculosis is found not to be advanced; and one-quarter of the market value or forty-five shillings, whichever sum is the greater, where advanced Tuberculosis is found.

During the four months in which the Order was in operation, 7 cases were dealt with; four of which were cases of Tuberculosis of the udder, on three farms; and two cases of chronic cough with definite evidence of Tuberculosis, on two farms; also one case of Tuberculosis with emaciation. All the cases showed on slaughter and post mortem examination that the disease was present in an advanced degree.

One cow exposed in the Cattle Market with clinical evidence of Tuberculosis of the udder, was returned to the district whence it came, under notice served by me.

Cattle Market. Owing to the outbreak of Foot and Mouth disease, the Cattle Market was closed on October 21st 1925, and remained closed for the rest of the year.

The approximate number of animals exposed for sale was :—

	Cattle.	Sheep.	Calves.	Pigs.	Horses.
1925	7171	6962	2346	486	23

The figures for the preceding 10 years are :—

	Cattle.	Sheep.	Calves.	Pigs.	Horses.
1924	5609	5608	3493	620	24
1923	7716	10026	3040	721	35
1922	4650	11289	2681	362	554
1921	4681	1913	2812	835	416
1920	9341	942	2258	530	365
1919	8345	17223	2188	163	269
1918	6424	23043	1832	111	126
1917	5599	503	2530	284	40
1916	4045	126	—	98	2
1915	5939	126	—	98	2

Yours faithfully,

E. J. BURNDRED,

Veterinary and Chief Meat Inspector.

SECTION 80, BLACKBURN CORPORATION ACT, 1922.

Food Preparing Premises.

This section reads as follows :—" Any premises ordinarily used or proposed to be ordinarily used for the preparation or manufacture of sausages, pressed potted or preserved meat fish or other food intended for the purposes of sale, shall be registered by the owner or occupier thereof with the Corporation from time to time in such manner as they may direct, and no premises shall be used for the purposes aforesaid unless the same are so registered and the Corporation shall have power to refuse registration of any premises where the conditions are unsuitable."

In compliance with this section 42 premises were registered. 264 visits were paid and in the majority of instances the premises were kept in a cleanly condition. Certain faults of drainage and ventilation were found and remedied. On the whole the standard maintained was satisfactory; the larger firms in particular were metriculous in their methods. The most unsatisfactory were small businesses, possessing makeshift premises and working under conditions not conducive to the easy maintenance of a high standard of cleanliness.

BAKEHOUSES.

There are approximately 288 premises in the Borough where bread, biscuits or confectionery are made for sale. Included in this number there are 46 factories where power is employed for mixing purposes. In most of the factories the electrical power is provided in self-contained mixing machines which take up little space, and this has proved of such assistance that gradually the preference for hand-mixed confectionery is being broken down.

On many of the premises baking is done in the rooms used as sculleries by the family, and although these bakehouses are clean and well-kept, it would be preferable if the baking was carried out in an apartment specially prepared for it.

FARM PREMISES.

There are 77 dairy farms in Blackburn, from 68 of which milk is retailed in the town. The other farmers sell their milk wholesale. Ninety-five farmers from outside the Borough are licensed to retail milk within it.

During 1925 many of the outstanding alterations have been carried out. There are still 9 farms at which the necessary alterations have not been completed, but will be done as soon as the cattle are turned out to grass. Sixty-eight farms are now in a satisfactory sanitary condition. The following give the principal improvements effected during the year :—

Cowsheds reconstructed	2
Middensteads reconstructed	3
Improvements to Cowshed floors	5
Improved Lighting of Cowsheds	7
Improved Ventilation of Cowsheds	4
Increase of cubic space	2
Internal Walls and Ceilings repaired	3
Improved Yard surface	1
Improved Drainage	4

DAIRIES.

There are now 85 registered dairies and milkshops; they have all been regularly inspected. Covered retainers or other suitable vessels for storing milk are insisted upon where there is any danger of contamination.

SALE OF FOOD AND DRUGS ACTS.

The Public Analyst is W. H. Roberts, Esq., M.Sc., F.I.C. The number of samples examined was 475, of which 44 or 9.2% were reported to be adulterated, or not up to the standard. This compares with 10.3% in 1924, and 8.5% in 1923. Two hundred and eighty-four samples were of milk, 99 of which were informal, that is, taken without the vendors knowing that they were to be examined. Twenty-five milk samples, or 8.8% were not up to the standard prescribed by the Ministry of Agriculture; the corresponding figure in 1924 was 15%. The 1925 samples included 20, or 7.04% of the total, in which the deficiency was considerable. The number of vendors concerned in these samples was 15. A formal sample is purchased immediately after the analysis of an informal one has shown that it is not up to the standard. In eight formal samples the deficiencies were marked, and the six vendors concerned were prosecuted. The total amount of the fines was £22 10s. 0d. The average composition of all the samples analysed during the year was: fat, 3.62%; not-fatty solids, 9.67%.

On eight occasions margarine was found exposed for sale not properly labelled; nine milk cans and two milk floats were also insufficiently labelled. In each of these cases the vendors were warned.

SAMPLES OF MILK FOUND ON ANALYSIS TO CONTAIN COW DUNG BY VOLUME PER 100,000 PARTS OF THE SAMPLE.

11 samples, less than 1.

*1 sample contained 3 parts; vendor fined £1 0s. 0d. and eight shillings analyst fee.

*1 sample contained 8 parts; vendor fined £3 0s. 0d. and eight shillings analyst fee.

*1 sample contained 4 parts.

* From the same vendor, who purchased his milk from different farmers.

MILK AND CREAM REGULATIONS.

Two samples of Preserved Cream were found on analysis to contain more preservative than was stated on the label. The vendors were warned. No other contravention of the Regulations was detected during the year.

SALE OF FOOD AND DRUGS ACTS.

TABLE 87.

	Samples taken.		*Samples Genuine.*		*Samples Adulterated.*	
	Formal.	*Informal.*	*Formal.*	*Informal.*	*Formal.*	*Informal.*
Milk	185	99	172	87	13	12
Sponge Cake	3	16	3	10	—	6
Margarine	1	14	1	13	—	1
Cheese	—	9	—	9	—	—
Lard	—	8	—	8	—	—
Condensed Machine Skimmed Milk	—	1	—	1	—	—
Jam	4	23	2	22	2	1
Butter	—	10	—	10	—	—
Baking Powder	—	12	—	12	—	—
Dried Milk	—	4	—	4	—	—
Condensed full-cream Milk (Sweetened)	—	5	—	5	—	—
Liquid Egg	—	1	—	—	—	1
Bicarbonate of Soda.	—	1	—	1	—	—
Cream of Tartar	—	1	—	1	—	—
Coffee	—	7	—	7	—	—
Egg Powder	—	5	—	5	—	—
Cocoa	—	3	—	3	—	—
Preserved Cream	1	11	1	10	—	1
Custard Powder	2	5	2	5	—	—
Condensed Machine Skimmed Milk (Sweetened)	—	8	—	8	—	—
Dried Peas	—	1	—	1	—	—
Preserved Peas	—	1	—	—	—	1
Cream	—	3	—	3	—	—
Tea	—	5	—	5	—	—
Skimmed Milk	3	—	1	—	2	—
Rice	—	1	—	1	—	—
Con. Full Cream Milk (Unsweetened)	—	3	—	3	—	—
Lemon Cheese	—	11	—	7	—	4
Sausages	—	4	—	4	—	—
Tin of Salmon	—	1	—	1	—	—
Malt Vinegar	—	3	—	3	—	—
	199	276	182	249	17	27

TABLE 88.

SALE OF FOOD & DRUGS ACTS.—Action taken in regard to Adulterated Samples.

Articles Purchased	Number analysed	Number genuine	No. adulterated	No. of sample	Formal samples	Informal samples	Amount of adulteration.	Remarks and action taken.
Milk	284	259	25	1	1	...	Slightly watered	Warning letter from M.O.H.
				2	1	...	9 per cent. deficient in milk fat	Fined £5
				4	1	..	8 per cent. deficient in milk fat and 3 per cent. of added water	Fined £5. Same farmer as sample 2
				5	1	...	5 per cent. of added water	Fined £5. Same farmer as samples 2 and 4
				6	1	...	6 per cent. deficient in milk fat	Fined £1
				88	...	1	7 per cent. deficient in milk fat	Formal sample taken and found genuine
				90	...	1	10 per cent. deficient in milk fat	Do. do.
				129	...	1	16 per cent. deficient in milk fat	Do. do.
				169	1	...	Slightly watered	Warning letter from M.O.H.
				171	1	...	Slightly watered	Do. do.
				187	...	1	9 per cent. of added water	Formal sample taken and found genuine.
				188	1	...	4 per cent. deficient in milk fat	Another sample taken and found genuine. Warning letter from M.O.H.
				222	...	1	10 per cent. deficient in milk at	Formal sample taken and found genuine
				225	...	1	11 per cent. deficient in milk fat	Do. do.
				227	...	1	6 per cent. deficient in milk fat	Do. do.
				279	...	1	Very slightly deficient in milk fat	Warning letter from M.O.H. Another sample taken and found genuine
				308	...	1	5 per cent. deficient in milk fat	Warning letter from M.O.H. Another sample taken and found genuine
				321	1	...	7 per cent. of added water	Fined £2. Vendor discontinued selling milk.
				327	...	1	9 per cent. deficient in milk fat	Formal sample taken and found genuine
				339	1	...	29 per cent. deficient in milk fat	Fined 10/-.
				411	...	1	8 per cent. of added water	Formal sample taken and found genuine.
				429	...	1	Slightly watered	Warning letter from M.O.H. Another sample taken and found genuine
				458	1	...	3 parts of cow-dung by volume per 100,000 parts of the sample	Fined £1 and 8/- for cost of analysis

Table 88.—Continued.

Articles Purchased	Number analysed	Number genuine	Number adulterated	Number of sample	Formal samples	Informal samples	Amount of Adulteration.	Remarks and action taken
Milk				459	1	...	8 parts of cow-dung by volume per 100,000 parts of the sample	Fined £3 and 8/- for cost of analysis. Same vendor as 458
				11	1	...	4 parts of cow-dung by volume per 100,000 parts of the sample	Taken in connection with samples 458 and 459
Sponge cake ...	19	13	6	12	...	1	0·066 per cent. Boracic Acid	Warning letter from M.O.H.
				13	...	1	0·066 per cent. Boracic Acid	Do. do.
				14	...	1	0·07 per cent. Boracic Acid	Do. do.
				17	...	1	0·1 per cent. Boracic Acid	Do. do.
				22	...	1	0·07 per cent. Boracic Acid	Do. do.
				23	...	1	0·066 per cent. Boracic Acid	Do. do.
Liquid Egg	1	...	1	52	...	1	1·0 per cent. Boracic Acid	Do. do. Discontinued use of Liquid Egg
Preserved Peas...	1	...	1	113	...	1	1·84 grains of Copper Suphate	Do. do.
Skimmed Milk..	3	1	2	168	1	...	Slightly watered	Do. do. Another sample taken and found [genuine
				170	1	...	Slightly watered	Do. do. do. do.
Lemon Cheese..	11	7	4	343	...	1	2 grains of Salicylic Acid per pound ...	Do. do.
				346	...	1	2 grains of Salicylic Acid per pound ...	Do. do.
				347	...	1	1 grain of Salicylic Acid per pound ...	Do. do.
				317	...	1	1·14 grains of Salicylic Acid per pound	Do. do.
Jam	27	24	3	148	...	1	2·1 grains of Salicylic Acid per pound..	Do. do.
				154	1	...	1·6 grains of Salicylic Acid per pound...	Do. do.
				155	1	...	1·05 per cent. Salicylic Acid per pound	Do. do.
Preserved Cream	12	11	1	84	...	1	0·53 per cent. Boracic Acid	Do. do.
Margarine	15	14	1	355	...	1	0·62 per cent. Boracic Acid	Do. do.

ATMOSPHERIC POLLUTION.

Table 89 gives a summary of the amounts of soluble and insoluble matter which fell, firstly in the neighbourhood of the Technical College, and, secondly, at the Corporation Hospital. The classification is made in four degrees, A being slight deposit, D great deposit. The results when analysed are interesting, and show no great difference from readings in previous years.

Owen's Automatic Air Filter is used at the Technical College, and an average of the hourly readings throughout the year yields interesting results.

1. The amount of suspended matter in the air was invariably least between 3 and 4 a.m.
2. The amount rose slightly between 4 and 5 a.m., more rapidly between 5 and 6 a.m., and very rapidly from 6 to 9 a.m.
3. From 9 a.m. to noon the amount of impurity was consistently high. The average maximum impurity for the winter months occurred between 7 and 9 a.m. For the summer months between 9 and 11 a.m.
4. From 12 noon to 1 p.m. there was for all months a decided drop in the atmospheric impurity which reached its minimum between 1 and 2 p.m. From this time there is a secondary rise in the amount of impurity to a maximum between 5 and 9 p.m.
5. There is a distinct difference in the time of this secondary rise between the winter and summer months. In the summer months the maximum is reached between 8 and 10 p.m. In the winter months it is earlier, viz., between 3 and 5 p.m.
6. From the above times there is a rapid drop in the impurity up to midnight.
7. February showed the greatest amount of atmospheric impurity, followed closely by January. June was the month with the least impurity, with July next. These two months showed a markedly cleaner atmosphere than any other months of the year.

The following are the monthly results obtained at the Technical College (1) and at the Corporation Hospital (2) by the analysis of water collected in the rain gauges. This water contains much of the soluble and insoluble atmospheric impurities.

The Table shows that the atmosphere of Blackburn is most impure in January, February, March, April and May; cleanest in June, July, August, September, and October. At no time during the year is Grade A reached in the centre of the town. At the Corporation Hospital Grade A was recorded in February, March, and June.

TABLE 89.

ATMOSPHERIC POLLUTION IN BLACKBURN 1925.

Guage 1. Balcony of Technical College. 400 feet above sea level.
,, 2. Corporation Hospital. 600 ,, ,, ,, ,,

1925			Metric Tons per Square Kilometre.									Included in Soluble Matter		
			Insoluble Matter					Soluble Matter						
Month	No. of gauge	Rainfall in m.m.	Tar	Classification	Carbonacious other than Tar	Ash	Total Insoluble matter	Loss on ignition	Ash	Total Solids	Classification	Sulphate	Chloride	Ammonia
Jan.	1	75·37	0·2595	D	2·8425	6·163	9.265	2·322	5·20	16·787	C	2·590	1·805	0·1225
	2	31·39	...	...	...	...	2·274	...	...	21·36	C	...	...	...
Feb.	1	194·6	0·3125	D	2·803	4·725	7.8415	1·867	5.798	15·508	C	2·912	1·257	0·132
	2	83·17	...	...	...	...	1·950	...	...	4·495	A	...	...	...
March	1	43·55	0·295	D	3·799	8·416	12·510	1·140	2·753	16·403	C	1·436	0·530	0·08125
	2	43·63	...	...	...	...	2·016	...	...	4·625	A	...	...	...
April	1	71·79	0·3547	D	4·734	11·726	16·8147	2·009	5·125	23·95	C	2·102	1·255	0·1166
	2	65·59	...	..	...	...	0·890	...	...	6·124	B	...	...	...
May	1	109·3	0.3017	D	4·225	11·028	15·5547	1·682	4·362	6·044	C	2 185	0·7065	0·1366
	2	110·9	...	...	...	..	0·7869	...	...	5·843	B	...	...	...
June	1	2·51	0·200	C	2·786	7·373	10·359	0·462	1·011	11·83	B	0·4504	0·1593	0·0126
	2	3·95	...	...	...	...	0·2569	..	...	1·257	A	...	...	...
July	1	60·15	0·212	C	2·658	7·125	9·995	1·275	2·647	13·917	B	1·113	0·320	0·0752
	2	53·04	...	...	...	...	1·285	...	...	5·357		...	...	...
Aug.	1	83·39	0·188	C	2·932	5·405	8·525	1·042	2·568	12·135	B	1·399	1·444	0·0834
	2	103·5	...	...	...	...	1·5315	...	...	5·733	B	...	...	...
Sept.	1	99·57	0·1834	C	2·509	4·734	7·4265	1·404	3·147	11·978	B	1·419	0·9036	0·0929
	2	103·5	...	...	...	...	1·5315	...	...	5·733	B	...	...	...
Oct.	1	164·1	0·239	C	3·019	4·969	8·227	1·544	4·298	14·07	B	2·620	0·936	0·123
	2	134·3	...	...	...	...	1·265	...	...	5·913	B	...	...	...
Nov.	1	99·45	0·226	C	3·600	5·694	9·520	3·123	4·752	17·395	C	2·997	0·8695	0·0995
	2	88·16	...	...	...	...	3·464	...	...	5·862	B	...	...	...
Dec.	1	55·50	0·208	C	2·847	5·158	8·213	2·431	4·740	15·383	C	2·335	1·287	0·166
	2	66·93	...		...		5·187	...	...	10·916	B	...	...	...

In connection with this subject it is profitable to explore other methods of obtaining power and heat and to make comparisons as to the efficiency in regard to cost of the respective methods. That the burning of raw coal, with the production of black smoke, is both wasteful of money and, not less, of health has been so repeatedly proved that further comments are unnecessary.

The Report of the Coal Commission points out that the amount of soot discharged into the air annually is estimated to be equal in weight to nearly three days' output of all the collieries of Great Britain. The work of over a million men for three days each year is devoted to providing the soot which pollutes the atmosphere.

By the distillation of coal, gas is obtained for lighting, heating, cooking, and power, coke for heating and power, petroleum and other oils, explosives, fertilisers, dyes and numerous valuable chemical products. The utilization of some 10% of the energy value of raw coal in raising steam power and producing electricity, compares unfavourably with the 25% that can be obtained through the methods of the gas industry. The present method of utilizing the energy stored up in coal is an uneconomical one in two ways. Firstly, as briefly explained above; and secondly, by the loss due to smoke pollution of the atmosphere, the corrosion of buildings, the soiling of clothes and decorations, the loss of time entailed by fogs, and the loss of health through the deprivation of sunlight. This loss has been put at £100,000,000. To balance the loss of sunlight due to improper use of "The stored sunlight of past ages," it has been necessary to establish clinics to provide Artificial Sunlight. The excellent effects of visible sources of radiant energy have been demonstrated during the winter in the Zoological Gardens. Animals which it was impossible to maintain in health previously have thrived under the use of arc lamps.

The Fuel Research Board issued a valuable report during the year on "The Heating of Rooms, a comparison of the costs of different methods on the basis of warmth and comfort." In view of the interest displayed of late in this subject and the important bearing it has on the Public Health, I have ventured to insert two Tables from the report together with the letterpress in relation thereto.

COSTS OF MAINTAINING ROOMS OF DIFFERENT SIZES AT 65°F. CONTINUOUSLY, WITH MEAN OUTSIDE TEMPERATURE 40°F. AND DIFFERENT NUMBERS OF OCCUPANTS.

No. of Occupants	Costs of Warming Rooms in pence per 24-hour day								
	1000 cubic foot room			2000 cubic foot room			4000 cubic foot room		
	Hot Water Radiators	Gas Heater	Electric Heater	Hot Water Radiators	Gas Heater	Electric Heater	Hot Water Radiators	Gas Heater	Electric Heater
1	3·0	7·8	23·2	5·0	12·8	38·0	8·2	21·2	62·6
2	2·7	7·0	20·7	4·6	12·0	35·4	7·9	20·4	60·2
3	2·4	6·2	18·3	4·3	11·2	33·1	7·6	19·6	57·8
4	2·1	5·4	15·8	4·0	10·4	30·6	7·3	18·7	55·3
6	...	...	...	3·4	8·7	25·8	6·6	17·1	50·4

It will be seen from the above figures that the cost of gas for air heating is about 2½ times, and the cost of electricity about 7½ times, that of coke for continuous heating. But owing to the greater ease of control of gas or electric appliances, they need not generally be left on for a 24-hour day. For a 16-hour day their costs would be reduced to 1.7 and 5 times that of coke, if no allowance is made for the fact that a small additional amount of heat would then be required to make good the heat losses from the structure of the room which continue during the non-heating periods.

COSTS OF PROVIDING BY DIFFERENT MEANS RADIATION FOR ROOMS OF DIFFERENT SIZES WITH DIFFERENT NUMBERS OF OCCUPANTS.

Size of Room (cubic feet)	No. of Occupants	Cost in pence per 16-hour day			
		Open Coal Fire: 22½ p.c. radiation	Open Low Temperature Coke: 28½ p.c. radiation	Open Gas Fire: 50 p.c. radiation	High Temperature Electric Heater: 70 p.c. radiation
1000	1	3·7	3·3	8·7	18·2
	2	4·7	4·2	11·0	23·1
	3	5·6	5·0	13·1	27·6
	4	6·2	5·5	14·5	30·5
2000	1	4·5	4·0	10·5	22·1
	2	5·6	5·0	13·1	27·6
	3	6·9	6·1	16·2	34·0
	4	7·5	6·6	17·6	36·9
	6	9·4	8·3	22·1	46·3
4000	1	5·1	4·5	12·0	25·1
	2	6·7	5 9	15·7	33·0
	3	8·6	7·6	20·2	42·3
	4	9·9	8·8	23·3	48·7
	6	12·4	11·0	29·1	61·2

It will be seen that, for continuous heating, by far the cheapest means of providing radiation is an open fire of low temperature coke: open coal fires are slightly more expensive: gas fires are about 2½ times as dear as coal, and electric heaters are about 5½ times as dear as coal. For intermittent heating, however, assuming that the gas fires or electric heaters are turned off immediately they are finished with, and neglecting the fact that for intermittent heating the room temperatures will be lower than for continuous heating, the cost of gas or electric heating will be in proportion to the time of operation. Suppose, for instance, that a room is actually occupied for only four hours daily, or for one-quarter of the 16-hour day which has been taken, the above figures for gas or electricity costs most be divided by four. The cost of gas then becomes little more than half the cost of coal; that of electricity about one and a quarter times the cost of coal. But in very cold weather the walls of rooms so heated would tend to become unpleasantly cold, though for in-between seasons very comfortable conditions would be produced.

The foregoing remarks may be read in conjunction with the following details, for which I am indebted to the Electrical Engineer and the Gas Engineer respectively.

Electrical Apparatus, etc.—The number of electrical cooking apparatus supplied during 1925 was approximately twenty. The Electrical Engineer adds that this number has already increased considerable in the early part of 1926, and that about 100 complete cooking outfits were connected to the mains.

The total number of mills electrified up to December 31st, 1925, was sixty-six; the number of mills taking the whole of their power requirements from the Corporation mains was fifteen.

Gas Apparatus, etc.—The approximate number of gas appliances in use at the end of 1925 was: Gas Cookers, 18,659; Gas Boilers, 9,056; Gas Fires, 2,477; and Gas Radiators, etc., 441.

SMOKE OBSERVATIONS.

There are 183 factory chimneys in the town, 100 of which are provided with smoke consuming appliances. One hundred and forty-four smoke observations, each of half an hour's duration, and 46 each of an hour's duration, have been taken, and in 39 black smoke was emitted in excessive quantities.

Thirty-nine informal and 9 statutory notices were issued during the year and resulted in an improvement in the chimneys concerned.

The standard of amounts of Black Smoke allowed to be emitted from a factory chimney in Blackburn are as follows:—

One boiler ...	4	minutes	black	smoke	in the	hour.
Two boilers ...	5	,,	,,	,,	,,	
Three boilers ...	6	,,	,,	,,	,,	
Four or more ...	7	,,	,,	,,	,,	

From the above observations it will be gathered that atmospheric pollution is by no means entirely caused by industrial processes. The records furnished by Owen's Automatic Air Filter, show that the period of greatest pollution is during the time when household fires are being made up to cook the mid-day meals. The secondary rise occurs at a time coincident with similar preparations for the evening meal.

Night air is considerably cleaner than day air, and thereby the popular fallacy of the harmful effects of night air is exploded.

TYPE OF SMOKE PREVENTING APPLIANCES.

Proctor's Mechanical Stokers	74
Leach Mechanical Stokers	7
Bennis' Mechanical Stokers	3
Hodgkinson Mechanical Stokers	4
Whittaker Mechanical Stoker	1
G.S.E. Mechanical Stoker	1
Sirroco Fans	3
Super Heaters	3
Edgar Allen Green	4

THE WORK OF THE SANITARY INSPECTORIAL STAFF.

I am indebted to the Borough Engineer, Mr. A. T. Gooseman, for the following particulars in relation to Sanitary Accommodation, Scavenging, Water Supply, and Housing.

1. SANITARY ACCOMMODATION :—

Privies	20
Pail Closets	172
Slop Water Closets	2391
Fresh Water Closets	36494
	39077

Conversions—

1 Privy converted by notice.
1 Privy converted without notice.

2. NEW SEWERS :—

Two Gates to Pleckgate Road	553yds. 15in.
Green Head Lane	255yds. 9in.
Roe Lee to Pleckgate Road	713yds. 15in.
Green Lane	280yds. 9in.
Parsonage Road	100yds. 9in.

3. LAVATORY AND URINAL ACCOMMODATION :—

W.C.'s and Lavatories are provided for females at Salford and the

Market House.

W.C.'s for same at Corporation and Queen's Parks and Cemetery.

W.C.'s, Lavatory and Urinals are provided for males at Salford Bridge and the Market House.

W.C.'s and Urinals for same at Corporation and Queen's Parks and Cemetery.

Urinals at Dandy Walk, Darwen Street Bridge, Infirmary Bridge, Bolton Road, Branch Road (Lr. Darwen), Grimshaw Park Bridge, Audley Bridge, Ciceley Bridge, Eanam Bridge, Accrington Road, Larkhill, Skew Bridge, Victoria Street (late Follywell Street), King Street Bridge, Harrison Street, Mill Hill Bridge, Mill Hill Station Bridge, Havelock Street, Cherry Tree, and East Park Road.

W.C.'s and Lavatories for Females are provided at Roe Lee Park and Rockcliffe Street Recreation Ground, also W.C.'s and Lavatories and Urinals are provided for males.

At Green Park W.C. and Lavatory accommodation is provided for males only.

4. COLLECTION OF REFUSE :—

Year.	House Refuse.				Fish Refuse.				Market Refuse.				Midden Refuse.			
	Lds.	T.	C.	Q.	Lds.	T.	C.	Q.	Lds.	T.	C.	Q.	Lds.	T,	C,	Q.
1920 ...	21823	37782	5	1	262	457	6	2	648	833	1	0	90	129	13	2
1921 ...	20205	36369	1	3	313	444	9	0	733	823	2	0	73	110	19	2
1922 ...	18996	33424	6	0	312	298	11	2	765	782	9	1	51	82	17	0
1923 ...	19043	33877	19	2	309	307	11	2	740	806	0	3	54	89	4	0
1924 ...	18844	33053	16	2	312	302	10	1	743	879	6	3	36	72	11	0
1925 ...	16980	28455	17	2	320	289	2	2	769	948	7	0	38	61	12	2

No. of Receptacles in use—

No. of Ashtubs	52
No. of Ashbins	29455
No. of Ashpits	1989

No. of Ashpits abolished and Bins substituted in lieu of same—

Abolished	5644
Bins substituted	9471

5. WATER SUPPLY :—

The average daily consumption of water was 4,500,764 gallons, compared with 4,252,262 gallons in 1924. The estimated population supplied was 141,000. The average consumption per head per day was 31.92 gallons, compared with 30.26 gallons in 1924. Chemical and bacteriological examinations of the water were carried out every second month, the quality being found satisfactory in every case.

The rainfall at the Bowland Gathering Grounds was 58.29 inches, and at Blackburn and District 41.93 inches.

HOUSING.

No houses have been demolished under the Towns Improvement Clauses Act, 1847.

No action has been taken in respect of temporary dwellings.

Number of New Houses completed and occupied during 1925 :—

a. Corporation houses, 97 (state aided).

b. Number built by private enterprise, 150.

c. Number built by private enterprise in respect of which a subsidy grant was made, 124.

d. Number of houses in course of erection at the end of 1925 :
  i. By the Corporation, 144.
  ii. By private enterprise, 77 (40 of these being State-aided).

e. Number of houses completed and occupied on the various Housing Estates of the Council :—

Type.		*Green Lane.*	*Intack.*
B3.	Parlour, 3 bedrooms	104	26
A3.	Non-Parlour, 3 bedrooms	32	41
A2.	Non-Parlour, 2 bedrooms	—	62
A2.	Flats	—	28
		136	157

f. The Rents of the Corporation Houses are as follows :—

							Per Week.
	Parlour	Type,	3	bedrooms	with bay,	1150 sq. ft. ...	11/6
	,,	,,	3	,,	without bay,	1150 sq. ft. ...	11/0
	,,	,,	3	,,	,, ,,	950 sq. ft. ...	10/9 & 10/3
Non-	,,	,,	3	,,	,, ,,	950 sq. ft. ...	10/3 & 9/9
,,	,,	,,	3	,,	,, ,,	858 sq. ft. ...	9/6 & 9/0
,,	,,	,,	2	,,	,, ,,	689 sq. ft. ...	7/6
Cottage Flats						...	6/6

(Rates are payable in addition by the tenants).

g. At the end of the year 1925 the number of applicants for Corporation houses was 530 from residents in rooms within the Borough, and 421 from householders and residents outside the Borough.

During the period 1920-25, the Corporation carried out the conversion of practically the whole of the pail closets which were in existence in the Borough, and the scheme is almost completed for the replacement of ashtubs and pits by galvanised iron dustbins.

General Housing Conditions in the Area. Compared with many industrial towns, Blackburn is fortunate in its housing conditions. Although there are areas which come near to the border-line between the average and the slum, it cannot be said that there is any real slum property. Certain individual streets contain poor houses in larger numbers than others. I have not, as yet, discovered any back-to-back inhabited houses, whilst the two or three-roomed houses are in a minority. (The Census 1921 gave the number as 2,125 or 7% out of a total of 30,948). The greatest number of houses were of the four to five-roomed type (25,594, or 83%).

The Census taken in March, 1926, did not reveal any shortage of houses—a surprising result when the length of the list of applicants for Corporation houses is borne in mind. Neither was there any universal overcrowding—the average rooms per person being 1.1. Individual cases of gross overcrowding came to the notice of the Department from time to time during the year, but investigation showed either (*a*) a bad distribution of the family in rooms, or (*b*) a deliberate sub-letting of a portion of the house to another family. This latter is the greater evil.

The principal cases are given below and the action taken :—

1. Two Families : 8 adults, 4 children. Two bedrooms, both overcrowded. A lodger family removed on verbal notice to abate overcrowding.

2. 2 Families : 3 adults, 6 children. Two bedrooms. A Lodger family of 1 adult and 3 children removed on notice.

3. Two Families and 2 Lodgers : 7 adults and 3 children. Two bedrooms. Two Lodgers removed on notice and sleeping arrangements altered.

4. One Family : 8 adults, 1 child. Two bedrooms. No action taken as yet.

5. Two families : 10 adults. Two bedrooms. One family on notice, but is awaiting alternative accommodation.

Group Inspection of Areas. A new system of Sanitary Survey was commenced at the commencement of 1926. The town has been divided into four areas, and each area was subdivided into blocks of property. All premises, etc., in the blocks is to be inspected for sanitary arrangements and general condition. The primary inspection is comparatively superficial, but if unsatisfactory conditions are found a second detailed inspection is to be made and entered upon the appropriate record cards. On the completion of the inspection of each block a full summary will be made under the following headings :—I. Private Dwellings. II. Workshops. III. Mills. IV. Offensive Trade premises. V. Dwellings and Shops. VI. Lock-up Shops. VII. Chip and Fish Shops, Milk Shops, and Food Preparing premises. VIII. Number of Insanitary premises. IX. Number of Unfit premises. X. Congested Areas, Yards, etc. XI. Obstructive Buildings. XII. Summary of work carried out on request or by statutory notice.

In this manner it is hoped to make a thorough and systematic survey of the whole town, and by so doing bring to light and have remedied defects which might otherwise have escaped attention.

Fitness of Houses. The older property in the town is suffering from the effects of neglect during the war years and, particularly when abutting important thoroughfares, from the vibration set up by fast, heavy traffic. Some houses are literally becoming slowly shaken to pieces.

The areas of the town in which the worst housing conditions exist are the following :—Brunswick Street area ; Water Street and Chapel Street ; Nab Lane ; Bradshaw Street ; Bolton's Court and Tontine Street area ; Joiner's Row and neighbourhood. In the several areas extensive repairs have been carried out. With the exception of a group of houses in Brunswick Street and a house in Thomas Street, certain houses in Bradshaw Street and Jackson Street; a group of houses in Tontine Street, which are scheduled for closure, and houses in Crook Street and Meadow Lane, the houses in the areas referred to above have been put in a fairly reasonable state of repair.

Defects in houses are not always due to the landlord's neglect. The tenant is not seldom to blame. Some tenants do not appear to have any regard for either their own or other people's property, and this type naturally gravitate to the worst type of landlord, for the reason that the good landlord will not have them. Particularly with relation to blocked drains and deranged water closets is the tenant at fault. Such articles as clothes, empty salmon tins, brickbats have been extracted from drains as the cause of the blockage. The best laid drain imaginable cannot cope with material of this nature.

The most usual defects met with in the routine inspection of houses are: (1) Dampness due to defective roofs, eaves and pointing; (2) defective window cords and frames, cracked ceilings and defective floors; (3) defective gutters and deranged or defective water closets; (4) dangerous and defective chimney stacks; and (5) defective dishstones.

Increase of Rent and Mortgage Interest (Restriction) Acts. One application has been received for a certificate to be granted. The applicant pays a fee of one shilling and thereupon a complete survey of the house is made. The certificate was granted in this case to the applicant; later the work required was completed and the certificate revoked. In another case outstanding four years the work was done and the certificate revoked.

1.—NUMBER OF NEW HOUSES ERECTED DURING THE YEAR:—

(*a*) Total	247
(*b*) With State Assistance under the Housing Acts 1919 or 1923:	
(i) By the Local Authority	97
(ii) By other Bodies or Persons	124

Unfit Dwelling Houses:—Inspection.

(1) Total number of Dwelling Houses inspected for housing defects (under P.H.A. or Housing Acts)	1749

(2) No. of Dwelling Houses which were inspected and recorded under the Housing (Inspection of District) Reg. 1910	516
(3) No. of Dwelling Houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	1
(4) No. of Dwelling Houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	1599

2.—REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES :—

No. of Defective Dwelling Houses rendered Fit in consequence of informal action by the Local Authority or their Officers	1053

3.—ACTION UNDER STATUTORY POWERS :—

A.—Proceedings under Sect. 28 of the Housing and Town Planning etc. Act, 1919.

(i) No. of Dwelling Houses in respect of which Notices were served requiring repairs	5
(ii) Number of Dwelling Houses which were rendered fit died after service of formal notices—	
(*a*) By Owners	5
(*b*) By Local Authority in default of Owners	0
(iii) No. of Dwelling Houses in respect of which Closing Orders became operative in pursuance of declarations by Owners of Intention to close	0

B.—Proceedings under Public Health Acts.

(i) No. of Dwelling Houses in respect of which Notices were served requiring defects to be remedied	247
(ii) No. of Dwelling Houses in which defects were remedied after formal notices—	
(*a*) By Owners	194
(*b*) By Local Authority in default of Owners	0

C.—Proceedings under Sect. 17 & 18 of the Housing, Town-Planning etc. Act, 1909.

(i) No. of Representations made with a view to the making of Closing Orders	0

(ii) No. of Dwelling Houses in respect of which Closing Orders were made	0
(iii) No. of Dwelling Houses in respect of which Closing Orders were determined, the Dwelling Houses having been rendered fit	0
(iv) No. of Dwelling Houses in respect of which Demolition Orders were made	0
(v) No. of Dwelling Houses demolished in pursuance of Demolition Orders	0

HOUSES LET IN LODGINGS.

There are 82 of these tenements on the register, and they contain 341 rooms which provide living and sleeping accommodation for 608 adults and 184 children.

Weekly inspections have been made by Inspector Kenyon, and also frequent visits paid by the Medical Officer of Health and the Chief Sanitary Inspector, during the year.

It is to be deplored that the Bye-Laws in force for the conducting of Houses Let in Lodgings do not give greater powers to the Corporation, so that annual registration and better cooking facilities could be enforced.

Although the rents charged are, in most instances, exorbitant, the accommodation is unsatisfactory, the furniture provided very scanty, and there is no provision for changing the worn-out and unclean bedding.

One hundred and twenty-one visits have been paid during the year, and notices have been issued, both verbal and preliminary, for defects which have occurred, but there has been no occasion to take legal proceedings.

The distinction between Common Lodging Houses and Houses Let in Lodgings is that in the former inmates pay nightly for lodging; in the latter payment is weekly or at longer intervals. This distinction causes difficulties in Health Administration. Many Houses Let in Lodgings are now on lines identical with a Common Lodging House, viz., several persons of the same sex occupying one common sleeping room, though unrelated to one another. The lower type of House Let in Lodgings is inferior to the Common Lodging House inasmuch as supervision cannot be so strict.

The Corporation took a case to the Appeal Courts in order to obtain a definite ruling, maintaining that, apart from the weekly payment of rent there was no difference between the average House Let in Lodgings and the Common Lodging House. The decision was against the Corporation. The decision from the Public Health aspect is unsatisfactory.

COMMON LODGING HOUSES.

There are 15 registered Common Lodging Houses, which provide accommodation for 519 persons. These have been regularly visited, and no case of over-crowding has been found. The Bye-Laws have been fairly well observed, and there has been no occasion to take legal proceedings against any of the keepers.

Situation of Premises.	*No. of Rooms.*	*Accommodation.*	
33 Larkhill Street	7	27 adults.	
66 Moor Street	19	92 ,,	
83 Moor Street	4	14 ,,	
3 Syke Street	8	66 ,,	
59 Water Street	5	26 ,,	2 children.
13 Birley Street	5	25 ,,	
7 & 9 Daisy Street	2	37 ,,	
26 Bradshaw Street	3	18 ,,	
8 Cowell Street	2	16 ,,	
15 Bent Street	3	25 ,,	
56 Chapel Street	6	36 ,,	
11 Grimshaw Park	5	21 ,,	
13 Grimshaw Park	3	18 ,,	2 children.
33 Joiner's Row	6	33 ,,	
8 Mount Pleasant	8	65 ,,	
	86	519	4 children.

TENTS, SHEDS, CARAVANS, ETC.

Within comparatively recent years, there has been a steadily growing tendency to a multiplication of these substitutes for houses. There are, apparently, persons who make a business of buying Caravans, etc., placing them on vacant ground which they rent, and then letting them out to tenants at from 5/- to 10/- per week.

The danger from the point of view of the Public Health is that the owners of the vans frequently omit any provision for an accessible and satisfactory water supply and closet accommodation. Also all slop waste from the vans is thrown on the land around, which becomes sour, and littered with all kinds of putrescible refuse. In one case the tenant had to walk nearly half a mile for water. Cleanliness under these conditions becomes one of the very rare virtues. Another arrangement is for the caravan tenants to obtain their water from the nearest house and to utilise the sanitary convenience attached thereto. This also is undesirable.

In one area on which caravans have been placed we have obtained the erection of a water closet, and the installation of a standpipe for water, by the landlord. In another case every sanitary precaution was carried out, resulting in a perfectly satisfactory state of affairs; but in other areas nothing has, as yet, been accomplished.

The problem cannot be attacked on the grounds of injury to health, for the caravan dwellers are, on the whole, particularly healthy. It is more on the grounds of the causation of avoidable nuisances, and the tendency to a disorderly and restless social life that this type of dwelling is to be condemned. If caravans were set apart on land suitably drained and prepared, with proper water and closet facilities, and a constant sanitary surveillance was exerted, then, from the Health aspect, causation for complaints would be proportionally diminished.

The Sanitary Inspectors have paid 153 visits to this class of dwelling, during the year. 40 nuisances were found, 10 notices served, and 21 of the nuisances remedied. In three instances there was overcrowding.

The principal situations of these caravan colonies are Audley, Cherry Tree, Lamack, and Whalley New Road.

Nine vans have left owing to the constant supervision and insistence upon a proper provision of water supply and w.c. accommodation.

During Easter Holiday Week, 25 travelling vans were inspected, whilst situated in the Market Place and neighbouring yards. The general cleanliness was well maintained, whilst temporary provision was made for refuse, closet accommodation, water supply, etc.

There were no cases of infectious disease, but each van occupier was instructed to report immediately to the Medical Officer of Health, if any sickness occurred.

OFFENSIVE TRADES.

The number of premises on the Register at the end of 1925 was 32. The Trades carried on were :—

Bone, and Rag and Bone Dealing	19
Bone Boiling, Fat Rendering, etc.	4
Gut Scraping and Preparing	2
Tripe Boiling	5
Soap Boiling	0
Knackering	2

During the year the premises of a bone dealer were demolished, and the business was removed to other premises in the town. An additional bone dealing business has been established on premises previously registered.

A gut-scraping business is carried out within the precincts of the Abattoir. This business has caused periodical complaints from stench, and it is indisputable that an abattoir is not a suitable place for such a business.

A bone-boiling business situated in close proximity to the principal shopping centre of the town, was also the cause of numerous complaints. This business has an up-to-date Iwell plant, but little faults and omissions in working details led to the emission of offensive fumes. These premises will, I am afraid, always be liable to cause bad smells owing to the very undesirable position in which they are placed.

Offensive Trades are best grouped together and placed away from centres of population. In Blackburn, they are widely scattered and consequently make their noxious influence felt far more acutely than if they were grouped and situated on the outskirts.

The cleanliness of the premises, and the care with which the business is carried on, are important factors operating as to the production or otherwise of a nuisance.

NUISANCES.

Table 91 gives a summary of the work done by the Sanitary Inspectorial staff during the year. The number of complaints by inhabitants was 317, compared with 268 in 1924, and 271 in 1923. Three thousand three hundred and seventy-four nuisances concerning 2,026 premises were abated during the year. In order to achieve these results, it was necessary to send 3,606 preliminary notices, 737 Public Health Act notices, and 230 personal letters from the Medical Officer of Health. It was not found necessary to initiate any prosecutions in this respect. Whenever possible the Department endeavours to get things done without legal proceedings, but occasionally, for particularly obdurate persons, appeal has to be made to the Courts. An occasional appeal in this manner has the effect of " speeding up " other outstanding and necessary repair work.

At the end of the year there were 334 notices outstanding; 252 were in hand at the end of the year, leaving 82 still to be dealt with. Most of these notices were served towards the end of the year.

The chief nuisances dealt with may be divided into those for which the occupiers were responsible and those for which the owners were liable. In the former group, dirty yards (111), dirty w.c. basins (85), dirty cellar areas (64), and the erection of obstructive buildings (85) were the most usual. In the latter group, defective interior fittings, etc. (868), defective gutters (396), damp and defective walls (369), and defective water closets (241) were the commonest.

The defective interior fittings together with defective w.c.'s should be a responsibility borne by tenant and landlord alike. It cannot be gainsaid that some of the notices served on landlords for the above reasons, would have been served more justly upon the tenant.

Apparently it is becoming more common for tenants to own their own houses. This is a change which will operate for good in every way, and should be encouraged by means of making easy money available for the purpose.

The Small Dwellings Acquisition Act is for this purpose, but is not sufficiently widely known and understood.

TABLE 90.

INSPECTION WORK.

No. of Complaints by Inhabitants	317
No. of Complaints referred from other Departments ..	116
No. of Special Inspections for suspected nuisances ...	224

No. of Nuisances discovered as result of :—

Complaints by Inhabitants	804
Visiting Cases of Infectious Diseases	106
Special Inspections	326
Complaints from other Departments	142
Notifications of H.M. Inspector of Factories	74
Routine Inspection Visits	1870
Housing and Town Planning Inspections	1268

Total number of Defects found	4723
Total number of Defects remedied	3981
No. of Informal Notices served	4723
Number of Formal Notices served	743
No. of Informal Notices complied with	3238
No. of Formal Notices complied with	511
No. of Interviews	306
No. of Letters sent out	233

Sanitary improvements made and defects remedied under the supervision of the Sanitary Inspector :—

TABLE 91.

DWELLING HOUSES.	
Water supply improved	66
Cleansed and limewashed	86
Overcrowding abated	5
Damp and defective house walls, roofs, etc.	369
Defective gutters and down-spouts	396
Cleansing dirty floors	33
,, ,, woodwork	—
,, ,, dirty yards	111
,, ,, bedding	10
,, ,, windows	1
,, ,, gully traps	64
,, ,, cellar areas	2
Obstructive buildings removed	10
Defective sink waste pipes	44
Defective dishstones	108
Waste pipes disconnected from drain	—
Yards and passages reflagged	4
Flooding of houses	1
Yards badly paved or flagged	46
Insufficient ventilation of rooms	1
Defective chimney flues	17
Window sash frames, cords, internal walls, ceilings, floors, stairs, fireplaces, doors, cupboards to be repaired	868
Dangerous and defective chimney stacks	80
Fractured internal walls	7
Gas pipes repaired	13
Water pipes repaired	10
Yard division walls	33
Defective and bulging external walls	39
Dry rot	4
TENTS, VANS, SHEDS.	
Vans removed from ground	10
SCHOOLS.	
Playgrounds—repairs to drains	5
,, repairs to asphalte	1
,, repairs to paving	4
,, repairs to flags	11
Urinals repaired or improved	10
Sanitary accommodation repaired or improved	14
WORKSHOPS & WORKPLACES.	
Cleansed and limewashed	37
Provided with sufficient sanitary accommodation	4
Sanitary condition improved	3
Ventilation improved	2
Overcrowding abated	1
Drains repaired	2
Other nuisances abated	18

BAKEHOUSES.

Cleansed and limewashed	55
Sanitary accommodation improved	2
Drains repaired	2
Animals removed	1
Other nuisances abated	10

DAIRIES, COWSHEDS, AND MILKSHOPS.

Reconstructed	3
Middensteads	3
Floors repaired	5
Improved lighting	7
Improved ventilation	4
Improved drainage	4
Cubic space increased	2
Internal walls and ceilings repaired	3
Improved yard space	1

ICE CREAM MANUFACTORIES.

Cleansing and limewashing	1
Sanitary conditions improved	4

OFFENSIVE TRADES PREMISES.

Limewashed	30

COMMON LODGING-HOUSES.

Cleansed and limewashed	28
Total nuisances abated	29

OFFENSIVE ACCUMULATIONS.

Removed	85

ANIMALS KEPT AS TO BE A NUISANCE.

Nuisances abated	29

SEWERS.

Cleansed	3

DRAINS.

Re-constructed	10
Re-layed with cement joints	80
Cleansed or repaired	432
Under houses (abolished)	2
Opened out for inspection	432
Connected to sewer	237
Intercepting traps provided	1
Soil pipes repaired	4
Inspection chambers built	1
Self-cleansing gullies furnished	109

WATER CLOSETS.

Cleansed	122
Repaired	53
Cisterns and flushing fittings repaired	136
Provided in substitution of slop-water closets	8

PRIVY MIDDENS.

Nuisances abated	1

PAIL CLOSETS.

Nuisance abated	—
Converted to W.C.'s	5
Tipplers converted to pedestal wash-down	30

SLOP-WATER CLOSETS.

Nuisances abated	26
Converted to W.C.'s	8

ASHPITS.

Abolished	7

ASH RECEPTACLES.

Repaired	30
Portable receptacles provided	164

STABLE PREMISES.

Removing manure	21
Reconstructed middensteads	4

HOUSES LET IN LODGINGS.

Nuisances abated	121

CANAL BOATS.

Leaky cabins repaired	1
Cask for water provided	1

DETAILS OF INSPECTION WORK.

Schools	45
Hospitals	—
Tents, Vans, Sheds	150
Factories	358
Workshops	1756
Workplaces	197
Bakehouses—Ordinary	661
Underground	4
Cowsheds	62
Dairies and Milk Shops	1548
Ice Cream Premises	336
Slaughterhouses	—
Offensive Trade Premises	524
Fried Fish Shops	886
Common Lodging Houses	676
Stable Premises	1179
Offensive Accumulations	38
Animals so kept as to be a Nuisance	39
Sewers	3
Street Gullies	234
Canal Boats	214
Smoke Observations	219
Theatres and Cinemas	11
Houses Let-in-Lodgings	1813
Dirty Houses	182
Common Yards, Back Roads and Passages	8279
Infected Houses	4706
Work in progress	8270
Housing and Town Planning Acts	2162
Fishmongers and Greengrocers.	890
Ashes Receptacles	346
Food Preparing and Storing Places	26
Outworkers' Premises	21
Enquiries re Milk Supply	26
Dwelling Houses re Nuisances..	1676
Samples of—	
Water procured	21
Milk purchased for Sediment Sediment Test	144
Milk purchased for Bacteriological Examination	85
Milk purchased for Bacteriological content	9
Freezing of Closets	711
Labelling of Condensed Milk Tins	141
Insufficient Water Supply	570
Miscellaneous	306

THE TESTING OF DRAINS.

No. of Smoke Tests	590
No. of Water Tests	202
No. of Colour Tests	214
Breaking Down	144
Inspections made while work was in progress	1198
Total number of Defects found	442
Number of Informal Notices served	442
Number of Formal Notices served	3
Number of Defects Completed	456
Number of Defects outstanding at end of 1925	3

TABLE 92.

FACTORIES, WORKSHOPS AND WORKPLACES.

I.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

(Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances).

Premises (1)	Number of Inspections (2)	Number of Written Notices (3)	Number of Occupiers prosecuted (4)
FACTORIES ... ... (Including Factory Laundries)	358	10	...
WORKSHOPS ... ... (Including Workshop Laundries)	1756	60	...
WORKPLACES ... ... (Other than Outworkers' premises)	197	2	...
Total	2311	72	...

II.—DEFECTS FOUND IN FACTORIES, WORKSHOPS, AND WORKPLACES.

Particulars (1)	Number of Defects Found (2)	Number of Defects Remedied (3)	Number of Defects Referred to H.M. Inspector (4)	Number of offences in respect to which prosecuti'ns were instituted (5)
NUISANCES UNDER THE PUBLIC HEALTH ACTS—				
Want of cleanliness	44	32	...	...
Want of ventilation	2	2	...	...
Overcrowding	1	1	...	...
Want of drainage of floors	...	...	...	...
Other nuisances	36	38	...	...
Sanitary accommodation — insufficient	6	8	...	...
Sanitary accommodation — unsuitable or defective	31	54	...	...
Sanitary accommodation — not separative for sexes	12	20	...	...
OFFENCES UNDER THE FACTORY & W'SHOP ACTS—				
Illegal occupation of underground bakehouse (s.101)	...	...	...	...
Other offences .. .. (Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921).	52	46	...	...
Total	184	201	...	...

FACTORIES.

TABLE 93.

Sanitary accommodation for women. Entrance to conveniences flooded with water, which appeared to come from a waste pipe at the top of building occupied by another tenant. The pans were not kept in a cleanlycondition. Notice sent. Pans cleansed and new waste water pipe fixed.

Sanitary accommodation for women. Flushing apparatus out of order and pan of convenience not clean. Notice sent. Pan cleansed and cistern repaired.

Limewashing of bakehouse overdue. Notice not required. Work done.

Limewashing of bakehouse due. Last date July, 1924. Notice sent. Work done.

No doors to women's sanitary conveniences. Notice sent. Doors fixed to four closets.

Large weaving shed. There is no intervening ventilated space between the women's sanitary convenience and the workroom. Small weaving shed, ditto. Winding room, ditto. There is insufficient means of ventilation in the convenience. Notice sent. The conveniences have been reconstructed to an approved plan, and are now satisfactory.

Limewashing of bakehouse overdue. Notice sent. Work done.

Owing to the tenancy of the upper room having terminated there is now no sanitary convenience available. Notice sent. Satisfactory arrangements made for access to sanitary convenience on the upper floor.

The sanitary conveniences are unscreened, there is insufficient sanitary accommodation for males, and there was effluvia from the cesspool adjoining the conveniences. Notice sent. The cesspool was emptied at once, and there is an arrangement pending for the conversion of the privies to fresh-water closets when the sewer has been connected to the Oswaldtwistle Council's sewer.

No sanitary accommodation provided. Notice sent and also reported to the Borough Engineer for legal action. Not provided.

Insufficient sanitary accommodation provided—two water closets for 108 males. Notice sent requiring three additional water closets. Work not yet started. Plans submitted but disapproved.

No doors provided to women's sanitary conveniences. Notice sent. Doors fixed to eight closets.

There was no sanitary convenience available. Notice sent. A water closet has been provided, but the disconnection from the workroom is not satisfactorily completed.

Limewashing overdue. Notice not required. Work done.

There was no intervening ventilated space between the sanitary convenience (first floor) and the workroom. Notice sent. Work done.

TABLE 94.

WORKSHOPS.

Ventilation:—No means of ventilation to gas iron heater in workroom. Sanitary convenience not sufficiently lighted artificially. Notice sent. Ventilated hood provided for stove and electric light fixed in water closet.

Wall of workshop in a defective condition. Staircase defective and handrail required. Notice sent. Work done.

Closet requires cleansing. Notice sent. Work done.

Workroom requires cleansing. Notice sent. Work done.

The ceiling of room on first floor is in an apparently dangerous condition structurally. Notice sent. Ceiling made safe.

Workrooms require limewashing. Notice sent. Four rooms limewashed.

Workshop requires limewashing. Notice sent. Work done.

Staircase leading to workroom requires cleansing. Workroom in an apparently dangerous condition structurally and badly in need of repair. Notice sent. Staircase cleansed and workroom repaired and made safe.

Bakehouse requires limewashing. Notice sent. Work done.

Separate sanitary accommodation not provided. Notice sent. Disused water closet put into proper repair.

Walls and ceiling, also workroom floor, requires cleansing. Notice sent. Work done.

Workshop requires cleansing. Notice sent. Work done.

Workshop requires cleansing. Notice sent. Work done.

Bakehouse requires limewashing. Notice not required. Work done.

Limewashing overdue. Notice not required. Work done.

Limewashing overdue. Notice not required. Work done.

Bakehouse requires limewashing. Notice not required. Work done.

Limewashing overdue. Notice not required. Work done.

Limewashing overdue. Notice not required. Work done.

Bakehouse, at recent visit, full of smoke due to defective chimney. The walls and ceiling are black, due to smoke from the oven flue, which has become choked due to a collapse. Notice sent. Defects remedied and bakehouse limewashed.

Limewashing slightly overdue. Notice sent. Work done.

Bakehouse requires limewashing. Notice sent. Work done.

Limewashing overdue. Notice sent. Work done.

Limewashing overdue. Notice not required. Work done.

Workroom requires limewashing. Notice sent. Work done.

Workroom requires limewashing. No notice sent. Not done.

Inside walls damp and workrooms require cleansing. Notices sent. Defective gutters repaired and three rooms limewashed.

Room requires limewashing. Notice sent. Work done.

Limewashing overdue. No notice sent. Not done.

Workshop requires limewashing. Notice sent. Work done.

Workrooms require limewashing. Notice sent. Three rooms limewashed.

Workshop requires limewashing. Notice sent. Work done.

Workshop requires cleansing. Notice sent. Not done pending repairs to lead flashing over two shop windows.

Bakehouse requires limewashing. Notice sent. Work done.

Limewashing overdue. No notice sent. Work done.

TABLE 95.

DISINFECTION.

Number of Rooms Sprayed		915
Tuberculosis	244	
Fever	506	
Vermin	31	
Institutions	87	
Other	47	

Articles Disinfected by Steam	9057
Number of Articles Destroyed by Consent of Owners	313
Amount of Disinfectant Distributed :—	
Chloros—191¾ gallons.	
Disinfectant Powder—28 packets.	
" D " Solution—1 quart.	
Collection of Typhoid Excreta Pails	5
Persons Cleansed at Disinfection Station	3
Cleansings	3
Library Books Fumigated	63

WELFARE OF THE BLIND.

Blind Persons Act Committee.

His Worship The Mayor.

Aldermen Fielding (Chairman), Greeves (Vice-Chairman), Keighley, Watson, Shorrock, and Ramsay.

Councillors—

Coward,
Fryars,
J. Holden,
Oddie,
Makin,
Campbell,
Harrison,
B. Holden.
Critchley,
Lucas,
Heyes,
Fish,
Hurley,
Bradley,
Grimshaw,

Messrs. D. B. Lawley, A. B. Brain, Councillor Ormerod, and Mrs. Coggins.

THE BLIND PERSONS ACT, 1920.

Scheme for Carrying Out the Duties Imposed by Section 2, Sub-Section 1, of the Blind Persons Act, 1920.

The Act is administered in Blackburn by the Town Council, who receive recommendations from a Committee consisting of 23 members of the Town Council and 4 non-Council members who are qualified by training or experience in matters relating to the blind.

This Scheme provides for the welfare of blind persons resident within the area of the County Borough.

There have existed in Blackburn for many years two Voluntary Societies engaged in promoting the welfare of the blind: firstly, the Blackburn & District Workshops for the Blind which are controlled by the Workshops Committee whose Honorary Secretary is Mr. Councillor J. Fryars, 149, Preston New Road, and The Blackburn and Darwen Society for Visiting and Instructing the Blind. The Honorary Secretary of the Society is Mr. Henry Schofield, 1, Richmond Terrace, Blackburn: this Society is hereinafter referred to as The Home Visiting Society. The Workshop is situated in Thornber Street, Blackburn: it was established on July 20th, 1908, by The Home Visiting Society and the original object of the Society was "To instruct in some handicraft children who have left Schools for the Blind and as far as practicable to provide employment at ordinary wages for adult blind and such further or other object as shall, from time to time, be prescribed by the Charity in general meeting, provided such object be to instruct, assist or benefit the blind or persons otherwise afflicted, defective, or incapacitated whether temporary or permanent." On the 30th November, 1920, the following addition was made at a special general meeting:—"The objects of the Charity shall be extended so as to include the instruction, assistance or benefit of blind persons and whether by the payment of money, instruction in trade, provision of employment or such other means as the Committee may from time to time determine."

For some time the Workshops were administered by a Committee of Management, responsible to the Home Visiting Society, but it was subsequently decided for financial reasons to make the two Committees independent of each other. At present accommodation is provided in the Workshop for males and females and the principal occupation is the making of skips, for which there is a local market, the making of knitted goods by machine, and brush making. There is accommodation for 50 workers, but at present there are only 40 blind persons in regular attendance, 3 of whom are in course of training. Of the trained workers, 11 are residents of the administrative County and 26 of Blackburn. The Workshops Committee employ a male Instructor and Manager of the Workshop who is sighted and a woman Home Visitor, who is partially blind, who supervises the work of the women home workers of Blackburn and district. They include 3 machine knitters, 2 of whom reside in Darwen and 1 in Blackburn, and 1 who is being trained as a machine knitter.

The blind Visitor also visits in their homes all the blind girls or women who are capable of being at an occupation. She instructs them in mat making, basket making, knitting and crochet work. The Workshops Committee provide materials for the home workers and arrange for the disposal of the finished articles.

The Home Visiting Society has been in existence over 38 years. They employ a Visitor (male, sighted), who visits all the blind regularly and arranges for the circulation of raised type books. The Society holds monthly re-unions and an annual picnic. There is held under their auspices a service for the blind each Sunday afternoon.

The work of the Society also involves a considerable amount of correspondence and exchange of information with other organisations for the blind in different parts of the country. Since pensions for the blind have been granted, the Society has provided the officers who deal with the pensions locally with lists of persons who are entitled to them. The Society certifies each case and the Pensions officers act on the certificates.

The Society has for many years given financial assistance to the needy blind.

The scheme in operation deals with the problems concerned in the following order :—

1. Children under School Age,
2. Educational Training of Children and Adults,
3. Employment,
4. Home Workers,
5. Hospitals,
6. Home Teaching,
7. Homes,
8. Unemployable Blind living at home,
9. Registration, and
10. The Prevention of Blindness.

1.—*Children under School Age.* The Health Visitors of the Corporation and the School Attendance Officers report to the Town Council cases of blindness which they find in the course of their duties. The children so found are visited periodically by the Health Visitors and the Visitor of the Home Visiting Society.

If a blind child is neglected arrangements are made by the Town Council, either directly or through the Board of Guardians, for the child to be received into a Home.

2.—*Educational Training of Children and Adults.* The Local Education Authority send blind children aged seven to sixteen years, of whom there are now 10, to residential Schools for the Blind. The Schools to which Blackburn children are sent are usually the Home for the Blind, Fulwood, Preston, or the Brunswick Road R.C. School, Liverpool. There are facilities for the full training of male and female blind persons over 16 years of age in basket-making, etc., at the Blackburn Workshops for the Blind. Training in other branches of work for the blind is available at the Bolton Workshops for the Blind and at Henshaw's Blind Asylum, Manchester, and is utilised in suitable cases by the Local Education Authority.

3.—*Employment in Workshops.* The Town Council assists the blind workers by making a grant of the same amount as the Government capitation grant, namely, £20 per annum per trained person whose usual residence is in Blackburn. This is a condition that the wages of the blind persons be at rates agreed upon between the Workshops Committee and the Town Council.

4.—*Home Workers.* Their work is supervised by the Visitor of the Workshops Committee and material is purchased and the goods disposed of by this Committee. There is co-operation between the Blackburn and the Bolton Workshops with regard to the buying of material and the disposal of goods.

5.—*Hospitals.* The need has not yet arisen for the establishment of hospitals in Blackburn.

6.—*Home Teaching.* This is provided by both Blackburn Societies. The one has a male sighted visitor and the other a partially-blind female visitor.

7.—*Homes.* There are 13 blind persons in the Institution of the Blackburn Board of Guardians. As this institution meets all needs it has not been necessary to establish a Home in Blackburn.

8.—*Unemployable Blind Living in their own Homes.* These are visited periodically by the Officer of the Home Visiting Society and are assisted to obtain old-age pensions, poor relief, or any other assistance which may be available. The Board of Guardians have adopted and act upon the following recommendation of one of their Committees: "That in the opinion of this Committee the living income of a person who is so blind as to be unable to perform any work for which eyesight is essential should not be less than £1 per week, and that in computing the amount of relief to be given to blind persons who may need relief in this Union the Board be requested to direct that the above-mentioned suggestion be taken into account and that in ascertaining the income of a person who is one of a married couple living together in the same house the regulations applicable to the awarding of pensions, pursuant to the provisions of The Blind Persons Act of 1920, be applied."

The Home Visiting Society gives some assistance to these and other necessitous blind persons: the cases are investigated by their Visitor. The Council make arrangements for the records of the Guardians, the Education Committee and the Pensions Committee to be available for his inspection, also any information which he has or can obtain about the blind is supplied on request, to the Council.

9.—*Registration.* The register of the blind in the area is kept by the Medical Officer of Health, Blackburn, at his office.

10.—*Prevention of Blindness.* Each midwife has been instructed by the Medical Officer of Health to instil a solution of silver salt into the eyes of all newly-born babies. The incidence of Ophthalmia Neonatorum is, for an industrial town, small. Such cases as occur are provided with nursing assistance by the Health Authority and, if the need arises, the mother and child are admitted for treatment to the Corporation Hospital.

The Nurses and Health Visitors attend the case at home or after discharge from Hospital until the condition of the eyes is stationary. Any children with impaired vision are visited periodically by the Health Visitors.

Cases of advanced myopia found during school medical routine inspection receive special attention while in school and their parents are warned of the danger of loss of eyesight if undue eyestrain be allowed.

Periodical medical inspection of blind persons in the area is undertaken so that they may receive advice as to treatment.

Cost.

The original cost of the scheme when first put into operation in 1920 was in the neighbourhood of £360. This was apart from the normal expenditure of the Health and Maternity and Child Welfare Committee of the Council and the cost of treatment of Ophthalmia Neonatorum.

The cost of facilities for educating and training the blind is borne by the Local Education Authority.

In 1922 the following addition was made to the Scheme:—An arrangement for the Ophthalmic Surgeon to examine such of the blind as desired it with a view to his recommending treatment for those likely to benefit. The estimated cost for 1922 of the scheme was £550. In 1923 the following additions were made:—A grant of £10 per annum towards the salary of the Home Teacher employed by the Workshops for the Blind, and the estimated expenditure for 1923 was £450. In 1924 it was resolved that a grant be made to the National Library for the Blind for the augmentation of wages of blind copyists employed by them and resident in the Borough and the amount of this grant to be the same as that paid by the Ministry of Health and that it be a condition of the payment of the grant that the wages of the copyists and the scale of augmentation thereof be approved by the Blind Persons Act Committee.

Also the definition of occupations which qualify for grant carried out at the Blackburn & District Workshops for the Blind was extended so as to include other suitable occupation as the Blind Persons Act Committee might approve from time to time. The estimated expenditure for the year was £550. In 1925 in the Scheme was included a grant of £20 to the Workshops for the Blind in respect of each person temporarily unemployed and resident in Blackburn and approved by the Blind Persons Act Committee.

Under Section 66 of the Public Health Act of 1925 Local Authorities are empowered to take measures for the prevention of blindness and in particular for the treatment of persons ordinarily resident within the area suffering from any disease of, or injury to, the eyes.

At the end of the year a draft scheme was under consideration whereby all persons from birth upwards were being enabled to obtain necessary advice and treatment for any affection of the eyes causing blindness.

LOCAL POWERS RELATING TO PUBLIC HEALTH.

1.—Blackburn Corporation Acts and Orders :—

The Blackburn Improvement Act, 1882.

The Blackburn Water Act, 1885.

The Blackburn Corporation Act, 1892.

Local Government Board's Provisional Orders Confirmation (No. 14) Act, 1894.

Local Government Board's Provisional Orders Confirmation (No. 18) Act, 1897.

The Blackburn Corporation Act, 1901.

The Blackburn Corporation Act, 1908.

Local Government Board's Provisional Orders Confirmation (No. 9) Act, 1910.

The Blackburn Corporation Water Act, 1911.

Local Government Board's Provisional Orders Confirmation (No. 1) Act, 1919.

The Blackburn Corporation Act, 1922.

2.—Acts of Parliament adopted by the Council :—

Parts II. & III. of the Public Health Acts (Amendment) Act, 1890, adopted by the Town Council, 2nd April, 1891.

Infectious Diseases (Prevention) Act, 1890, adopted by the Town Council (except Sections 14 and 19), 5th March, 1891.

Part III. of the Housing of the Working Classes Act, 1890, adopted by the Town Council, 5th August, 1897.

Public Health Acts Amendment Act, 1907 : Certain sections adopted by Orders of the Local Government Board on the 5th December, 1908; 5th January, 1910; and by Order of the Secretary of State, dated 27th October, 1909.

3.—Bye-Laws and Regulations in Force in the Borough :—

General Bye-Laws, dated 12th January, 1855.

Bye-Laws for regulation of Private Slaughterhouses, 25th October, 1877.

Regulations for preventing waste, misuse, or contamination of water, 17th December, 1887.

Bye-Laws *re* Common Lodging Houses, 6th September, 1888.

Bye-Laws made under Contagious Diseases (Animals) Act, 1878 to 1890, and the Dairies, Cowsheds, and Milkshops Orders of 1885 and 1886, 5th July, 1893.

Bye-Laws *re* Houses Let in Lodgings, 4th April, 1895.

Bye-Laws for regulation of Offensive Trades, 4th March, 1897.

Bye-Laws with respect to Management and Charges for Slaughterhouses established by the Council, 20th March, 1901.

Bye-Laws for the prevention of carrying Carcases through the Streets, 25th April, 1901.

Bye-Laws *re* Cattle Markets, 1st June, 1905.

Regulations made under the Diseases of Animals Acts, 1894 to 1903 and Lancashire (Parasite Mange) Order, of 1908, 9th February, 1910.

Regulations made under the Diseases of Animals Acts and Glanders or Farey Order of 1920, 17th February, 1921.

County Borough of Blackburn Offensive Trades Confirmation Order, 1922, declaring Rag and Bone Dealing to be an Offensive Trade.

Bye-Laws *re* Tents, Vans, Sheds and Similar Structures, 15th May, 1924.

Bye-Laws *re* Houses Let in Lodgings, 20th June, 1924.

MINISTRY OF HEALTH ORDERS, ETC., 1925.

STATUTES :

Housing Act, 1925.

Public Health Act, 1925.

ORDERS :

No. 704. The Milk & Dairies Consolidation Act, 1915 (Commencement of Operations) Order, 1925.

REGULATIONS :

No. 273. The Public Health (Imported Food) Regulations, 1925.

,, 775. The Public Health (Preservatives, etc., in Food) Regulations, 1925.

,, 757. The Public Health (Prevention of Tuberculosis) Regulations, 1925.

CIRCULARS :

No. 557.	Dated	9/2/25.	Training of Health Visitors.
,, 558.	,,	27/3/25.	Public Health (Imported Food) Regulations.
,, 559.	,,	27/3/25.	Training and Supply of Midwives.
,, 565.	,,	10/3/25.	Public Health (Foreign Meat) Regulations.
,, 593.	,,	4/6/25.	Pemphigus Neonatorum.
,, 606.	,,	11/8/25.	Public Health (Preservatives, etc., in Food) Regulations, 1925.
,, 607.	,,	21/7/25.	Provision for the Institutional Treatment of Persons suffering from Tuberculosis.
,, 607a.	,,	21/7/25.	Treatment of Tuberculosis.
,, 615.	,,	7/8/25.	Public Health (Prevention of Tuberculosis) Regulations, 1925.
,, 612.	,,	31/7/25.	Milk & Dairies (Consolidation) Act, 1915.
,, 616.	,,	—/8/25.	Tuberculosis Order of 1925 (No. 2) Meat Inspection.
,, 613.	,,	15/9/25.	Treatment of Tuberculosis.
,, 613a.	,,	15/9/25.	Treatment of Tuberculosis.
,, 613b.	,,	15/9/25.	Treatment of Tuberculosis.
		4/9/25.	Two Circulars : The Public Health Act, 1925.
,, 622.	,,	14/9/25.	Puerperal Fever.
,, 635.	,,	17/11/25.	Venereal Diseases.
,, 659.	,,	21/12/25.	Contamination of Apples by Arsenic.

MEMORANDA :

No. 100. Maternity & Child Welfare.

,, 101/M.C.W. Explanatory of Grants for the Training of Health Visitors.

,, 102. Grants in aid of the Training of Midwives.
Memorandum on Pemphigus Neonatorum.
,, 107/T. Tuberculosis.
,, 108/T. Tuberculosis, Preston Hall.
,, 109/T. Tuberculosis, East Lancashire Tuberculosis Colony, Barrowmore Hall.

MINISTRY OF AGRICULTURE AND FISHERIES.

ORDERS :
No. 116. Diseases of Animals.
The Foot and Mouth Disease (Emergency Restrictions) Order, 1925.
,, 697. The Foot and Mouth Disease (Amendment) Order of 1925 (No. 2).
Tuberculosis Order of 1925.
Tuberculosis Order of 1925 (No. 2).
The Foot and Mouth Disease (Amendment) Order of 1925.
,, 735. Diseases of Animals—The Foot and Mouth Disease (Infected Areas Restriction) Order of 1925.
,, 1178. The Foot and Mouth (Packing Materials) Order of 1925.
The Foot and Mouth Disease (Amendment Order) 1925.
The Diseases of Animals (Disinfection) Order, 1925.
The Movement of Animals (Records) Order, 1925.

CIRCULARS :
No. 18. Tuberculosis Order of 1925 (No. 2).

VOLUNTARY AGENCIES.

The voluntary agencies co-operating with the Public Health Department have continued their useful work during the year. The Blackburn Corporation have an agreement with the Blackburn & District Nursing Association to undertake domiciliary nursing of cases of Measles, Whooping Cough, Diarrhœa, Puerperal Fever, Ophthalmia Neonatorum, Influenzal Pneumonia, etc., for which a retaining fee of £35 per annum is paid together with an additional 8d. per visit. The following Table gives the work carried out by the Blackburn & District Nursing Association in this respect during the year 1925 :—

TABLE 96.

HOME NURSING BY DISTRICT NURSES.

Disease	On books Jan. 1st 1925	New cases	Cured	Died	Hospital	Remaining end of 1925	Visits
Tuberculosis	2	21	5	11	1	6	1346
Pneumonia...	4	108	78	28	2	4	1599
Whooping Cough ...	...	2	...	...	...	2	42
Puerperal Fever ...	...	3	2	1	...	...	94
Ophthalmia Neonatorum	2	16	16	...	1	1	773
Measles	3	11	11	2	1	...	182
Diarrhoea	...	7	7	...	...	...	126
Total	11	168	119	42	5	13	4162

The Voluntary Workers at the Maternity and Child Welfare Centres continued to give their services and have been of very great assistance to the Health Department at the Centres during the year.

The National Society for the Prevention of Cruelty to Children also visited cases when requested by the Medical Officer of Health.

EDUCATION ON HEALTH.

The work of the Publicity Committee on Health has been continued as usual during the present year. A Health Exhibition was held from February 11th—21st, 1925, and in connection therewith a handbook consisting of 71 pages and including many illustrations, was issued and had a large circulation. Health Sermons were preached on February 8th and 15th at over 50 places of worship in the Borough. The Exhibition was formally opened by His Worship the Mayor and was visited by over 30,000 persons. Lectures were given each day on various Public Health subjects and were well attended.

Lectures and various talks to the children attending the Domestic Science Centre were also given.

The following is a list of Lectures given during the year 1925 :—

Date.	Where Lecture Held.	Title of Lecture.		Attendance.
Jan. 20	St. John Ambulance Association	Milk and Its Treatment.	B.	100
,, 20	Maudsley Street School	The Child: Its Growth and Development.	F.	30
,, 22	Furthergate School	Do. Do.	F.	30
,, 23	St. Philip's Parochial Hall	The Training of the Child.	F.	50
,, 27	Assembly Hall (Sir Bruce Bruce-Porter)	Health, Wealth, and Welfare.		750
,, 27	Manchester Unity of Oddfellows	The Work of a Health Dept.	D.	80
,, 27	St. Matthew's School	How to Keep Your Children Healthy.	F.	35
,, 30	Accrington Road School	Do. Do.	F.	35
Feb. 3	Audley Range School	Common Ailments which affect School Children.	F.	40
,, 5	St. Thomas's School	Do. Do.	F.	25
,, 10	St. Silas's School	The Child: Its Growth and Development.	F.	45
,, 17	St. John Ambulance	Climate and Health.	L.	100
,, 24	St. Barnabas's School	Common Ailments which affect School Children.	F.	25
,, 11-21		Health Exhibition.		30,000
,, 17, 18 & 20	Queen's Hall	Film, "Healthy Motherhood."	M.	1,200
Mar. 3	Assembly Hall (Dr. C. J. Bond)	Nature & Nurture as Factors in the Healthy Life.		750
,, 31	Assembly Hall (Dr. C. W. Budden)	The Call of the Open Air.		700
May 6	Rotary Club	Fundamentals of Public Health.	F.	20
July 7	Baby Week Celebrations, Oswaldtwistle	Care of Infant, first 12 months.	L.U.	75
Oct. 12	St. Stephen's	The Citizen's Health—His Duties.	M.O.H.	120
Nov. 11	St. John Ambulance Association	Posture and its Maintenance.	H.	120
Dec. 2	Blackburn Rotary Club	The Economics of Health.	M.O.H.	30
,, 8	St. John & Trinity Conservative Club	How Citizens can help in improving the Public Health.	M.O.H.	80
,, 9	St. John Ambulance Association	Individual Responsibility for Public Health.	M.O.H.	130
		Total		34,570

M.O.H. Lectures by Medical Officer of Health.
D. ,, ,, Dr. Daley.
F. ,, ,, Dr. Frazer.
L. ,, ,, Dr. Lamont.
H. ,, ,, Dr. Hogg, Asst. M.O.H. (Schools).
M. ,, ,, Dr. Mackenzie, Asst. M.O.H. (Maternity and Child Welfare).
B. ,, ,, Mr. Burndred (Veterinary Inspector).
L.U. ,, ,, Miss Lunt (Health Visitor).